Thr	Thr	Thr	Lys	Ala	Pro	Ser	Val	Lys	Pro	Lys	Val	Lys	Gln	Pro	Lys
305					310					315					320
Val	Lys	Ala	Glu	Pro	Pro	Pro	Lys	Lys	Arg	Lys	Lys	Trp	Lys	Glu	Glu
				325					330					335	
Phe	Ser	Ser	Ser	Gln	Ser	Asp	Ser	Ser	Pro	Glu	11e	His	Thr	Ser	Ser
			340					345					350		
Ser	Asp	Asp	Glu	Glu	Phe	GIu	Pro	Pro	Ala	Pro	Phe	Va]	Thr	Arg	Phe
		355					360					365			
Leu	Asn	Thr	Arg	Ala	Met	Lys	Glu	Thr	Phe	Lys	Ser	Tyr	Met	Glu	Leu
	370					375					380				
Leu	Val	Ser	He	Ala	Leu	Asp	Pro	Asp	Thr	Met	Gln	Ala	Leu	Glu	Lys
385					390					395					400
Ser	Λsn	Asp	Glu	Leu	Leu	Leu	Pro	His	Met	Lys	Lys	Пе	Asp	G1y	Met
				405					410					415	
Leu	Asn	Asp	Asn	Arg	Lys	Arg	Leu	Leu	Leu	Asn	Leu	His	Leu	Asp	Gln
			420					425					430		
Ser	Phe	Lys	Asn	Ala	Leu	Glu	Ser	Phe	Pro	Glu	Leu	Thr	He	He	Thr
		435					440					445			
Arg	Asp	Ser	Lys	Ala	Lys	Ser	Gly	G1 y	Thr	Ala	lle	Ser	Lys	He	Lys
	450					455					460				
Met	Asn	Gly	Lys	Ala	Tyr	Asn	Lys	Lys	Thr	Leu	Arg	Thr	Ser	Lys	Thr
465					470					475					480
Thr	Thr	Lys	Ser	Ala	Gln	Glu	Phe	Ala	Val	Asp	Pro	Glu	Lys	lle	Gln
				485					490					495	
Leu	Tyr	Ser	Leu	Tyr	His	Ser	Leu	His	His	Tyr	Lys	Tyr	His	Val	Tyr
			500					505					510		
Leu	He	Cys	Lys	Asp	Glu	He	Ser	Ser	Val	G1 n	Lys	Lys	Asn	Glu	Asp
		515					520					525			
Leu	G]y	Gln	Glu	Glu	He	Val	Gln	Leu	Cys	Met	Lys	Asn	Val	Lys	Trp
	530					535					540				
Val	Glu	Asp	Leu	Phe	Glu	Lys	Phe	Gly	Glu	Leu	Leu	Asn	His	Val	Gln
545					550					555					560
Gln	Lys	Cys	Ser												

<210> 3793 <211> 127 <212> PRT <213> Homo sapiens

<400> 3793 Met Arg Glu Leu Arg His Arg Ala Arg Pro Ser Gly Phe Asn Arg Trp Met Gly Ala Ala Ser Gln Ser Pro Leu Ser Ser Ala Ser Pro Ser Pro 30 25 Gly His Thr Pro Ala Pro Thr Thr Ser Pro Thr Gly Tyr Arg Ala Glu 40 Asp Pro Pro Ala Gly Arg Ala Ala Gln Arg Pro Gln His Thr His Pro 50 55 60 Thr Leu Gln Gly Leu Thr Leu Pro Ala Gln Leu Asn Ala Thr Ser Ser 65 70 75 Leu Lys Leu Ser Pro Ser Pro Pro Pro Thr Arg Ala Ala Ser Gly Pro 85 90 Arg Thr Val Pro Gly Gly Ala Pro Arg Gln Asp Gln Thr Tyr Pro Ser

105

125

Ser Lys Ser Pro Ser Leu Leu Thr Ala Gln Met Leu Pro Gly His

120

<210> 3794

<211> 711

<212> PRT

<213> Homo sapiens

115

100

<400> 3794

Met Ser Ser Val Gln Ser Gln Gln Glu Gln Leu Ser Gln Ser Asp Pro Ser Pro Ser Pro Asn Ser Cys Ser Ser Phe Glu Leu 11e Asp Met Asp 20 25 Ala Gly Ser Leu Tyr Glu Pro Val Ser Pro His Trp Phe Tyr Cys Lys 35 40 45

Пе	He	Asp	Ser	Lys	Glu	Thr	Trp	He	Pro	Phe	Asn	Ser	Glu	Asp	Ser
	50					55					60				
Gln	Gln	Leu	Glu	G1u	Ala	Tyr	Ser	Ser	Gly	Lys	Gly	Cys	Asn	G1 y	Arg
65					70					75					80
Val	Val	Pro	Thr	Asp	Gly	Gly	Arg	Tyr	Asp	Val	His	Leu	Gly	Glu	Arg
				85					90					95	
Met	Arg	Tyr	Ala	Val	Tyr	Trp	Asp	Glu	Leu	Ala	Ser	Glu	Val	Arg	Arg
			100					105			-		110		
Cys	Thr	Trp	Phe	Tyr	Lys	Gly	Asp	Lys	Asp	Asn	Lys	Tyr	Val	Pro	Tyr
		115					120					125			
Ser	Glu	Ser	Phe	Ser	Gln	Val	Leu	Glu	Glu	Thr	Tyr	Met	Leu	Ala	Val
	130					135					140				
Thr	Leu	Asp	Glu	Trp	Lys	Lys	Lys	Leu	Glu	Ser	Pro	Asn	Arg	Glu	Пе
145					150					155					160
He	He	Leu	His	Asn	Pro	Lys	Leu	Met	Val	His	Tyr	Gln	Pro	Val	Ala
				165					170					175	
Gly	Ser	Asp	Asp	Trp	Gly	Ser	Thr	Pro	Thr	Glu	Gln	Gly	Arg	Pro	Arg
			180					185					190		
Thr	Val	Lys	Arg	Gly	Val	Glu	Asn	He	Ser	Val	Asp	He	His	Cys	Gly
		195					200					205			
Glu		Leu	Gln	He	Asp	His	Leu	Val	Phe	Val	Val	His	Gly	He	Gly
	210					215					220				
Pro	Ala	Cys	Asp	Leu	Arg	Phe	Arg	Ser	11e		Gln	Cys	Va]	Asn	Asp
225					230					235					240
Phe	Arg	Ser	Val		Leu	Asn	Leu	Leu		Thr	His	Phe	Lys		Ala
				245					250			_		255	_
Gln	Glu	Asn		Gln	He	Gly	Arg		Glu	Phe	Leu	Pro		Asn	Trp
	_		260		_			265				_	270		
His	Ser	Pro	Leu	His	Ser	Thr	_	Val	Asp	Val	Asp		GIn	Arg	He
mı.		275	0				280			rs.	/DI	285		m)	
Ihr		Pro	Ser	He	Asn		Leu	Arg	HIS	Phe		Asn	Asp	Ihr	He
,	290	17 3	151	lol .	T	295	C	D	TI.	T	300	C 7	TI	7.7	12 I
	Asp	Val	Phe	Phe		Asn	Ser	Pro	Ihr		Cys	GIn	Ihr	11e	
305	TC1	37 3		C	310	M .			7.7	315	(C)		EM		320
Asp	Thr	Val	Α1а		ыы	met	Asn	Arg		lyr	Ihr	Leu	rhe		GIn
				325					330					335	

Arg	Asn	Pro	Asp	Phe	Lys	Gly	Gly	Val	Ser	11e	Ala	Gly	His	Ser	Leu
			340					345					350		
Gly	Ser	Leu	lle	Leu	Phe	Asp	He	Leu	Thr	Asn	Gln	Lys	Asp	Ser	Leu
		355					360					365			
Gly	Asp	He	Asp	Ser	Glu	Lys	Asp	Ser	Leu	Asn	Пе	Val	Met	Asp	Gln
	370					375					380				
Gly	Asp	Thr	Pro	Thr	Leu	Glu	G1u	Asp	Leu	Lys	Lys	Leu	Gln	Leu	Ser
385					390					395					400
Glu	Phe	Phe	Asp	He	Phe	Glu	Lys	Glu	Lys	Val	Asp	Lys	Glu	Ala	Leu
				405					410					415	
Ala	Leu	Cys	Thr	Asp	Arg	Asp	Leu	Gln	${\tt Glu}$	11e	Gly	He	Pro	Leu	Gly
			420					425					430		
Pro	Arg	Lys	Lys	He	Leu	Asn	Tyr	Phe	Ser	Thr	Arg	Lys	Asn	Ser	Met
		435					440					445			
Gly	lle	Lys	Arg	Pro	Ala	Pro	Gln	Pro	Ala	Ser	Gly	Ala	Asn	lle	Pro
	450					455					460				
Lys	Glu	Ser	Glu	Phe	Cys	Ser	Ser	Ser	Asn	Thr	Arg	Asn	Gly	Asp	Tyr
465					470					475					480
Leu	Asp	Val	Gly	lle	Gly	Gln	Val	Ser	Val	Lys	Tyr	Pro	Arg	Leu	Ile
				485					490					495	
Tyr	Lys	Pro	Glu	He	Phe	Phe	Ala	Phe	Gly	Ser	Pro	lle	Gly	Met	Phe
			500					505					510		
Leu	Thr	Val	Arg	Gly	Leu	Lys	Arg	He	Asp	Pro	Asn	Tyr	Arg	Phe	Pro
		515					520					525			
Thr	Cys	Lys	Gly	Phe	Phe	Asn	He	Tyr	His	Pro	Phe	Asp	Pro	Val	Ala
	530					535					540				
Tyr	Arg	Пе	Glu	Pro	Met	Val	Val	Pro	Gly	Val	Glu	Phe	Glu	Pro	
545					550					555					560
Leu	He	Pro	His		Lys	Gly	Arg	Lys	Arg	Met	His	Leu	Glu	Leu	Arg
				565					570					575	
Glu	Gly	Leu	Thr	Arg	Met	Ser	Met	Asp	Leu	Lys	Asn	Asn	Leu	Leu	Gly
			580					585					590		
Ser	Leu		Met	Ala	Trp	Lys		Phe	Thr	Arg	Ala		Tyr	Pro	Ala
		595					600					605			
Leu		Ala	Ser	Glu	Thr		Glu	Glu	Thr	Glu		Glu	Pro	Glu	Ser
	610					615					620				

Thr Ser Glu Lys Pro Ser Asp Val Asn Thr Glu Glu Thr Ser Val Ala Val Lys Glu Glu Val Leu Pro 11e Asn Val Gly Met Leu Asn Gly Gly Gln Arg lle Asp Tyr Val Leu Gln Glu Lys Pro lle Glu Ser Phe Asn Glu Tyr Leu Phe Ala Leu Gln Ser His Leu Cys Tyr Trp Glu Ser Glu Asp Thr Val Leu Leu Val Leu Lys Glu Ile Tyr Gln Thr Gln Gly Ile Phe Leu Asp Gln Pro Leu Gln

<210> 3795

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3795

Met Ser Arg Val Met Pro Ala Trp Phe Leu Phe His Ala Trp Arg lle Cys lle Gly Glu Leu Arg Thr Ala Ala Lys Val Ser Gly Gln Gly Trp Trp Ala Gln Trp Ala Ala Cys Gly Arg Cys Leu Ala Met Val Arg Arg Cys Glu Ser Pro Pro Gly Ser Arg Ala Val Gly Gly Gln Leu Arg His Gly Ser His Pro Gln Pro Ser Glu Trp Leu Pro Cys Ser Thr Gln Gly Gly Lys Arg Glu Arg Pro Met Pro Ala Val Ser Ser Val Leu Cys Leu His Cys Cys Phe Pro Ser Phe Leu Cys Arg Ser Trp Ser Ser Gln Arg Gln His Lys Ala Gly Glu Arg Gly Gly Gly Gly Lys Met Glu Glu

Pro Thr Leu Leu Pro Pro Arg Leu Arg Glu Arg Asn 11e Ser Leu Asp 130 135 140 Trp Lys Val Pro 11e Arg Gln Tyr 145 150

<210> 3796

<211> 890

<212> PRT

<213> Homo sapiens

<400> 3796

Met Asp Phe Gly Thr Val Arg Glu Thr Leu Asp Ala Gly Asn Tyr Asp 10 Ser Pro Leu Glu Phe Cys Lys Asp lle Arg Leu lle Phe Ser Asn Ala 25 Lys Ala Tyr Thr Pro Asn Lys Arg Ser Lys Ile Tyr Ser Met Thr Leu 35 40 45 Arg Leu Ser Ala Leu Phe Glu Glu Lys Met Lys Lys Ile Ser Ser Asp 55 Phe Lys 11e Gly Gln Lys Phe Asn Glu Lys Leu Arg Arg Ser Gln Arg 70 Phe Lys Gln Arg Gln Asn Cys Lys Gly Asp Ser Gln Pro Asn Lys Ser 85 90 lle Arg Asn Leu Lys Pro Lys Arg Leu Lys Ser Gln Thr Lys lle lle 105 Pro Glu Leu Val Gly Ser Pro Thr Gln Ser Thr Ser Ser Arg Thr Ala 115 120 125 Tyr Leu Gly Thr His Lys Thr Ser Ala Gly 11e Ser Ser Gly Val Thr 135 Ser Gly Asp Ser Ser Asp Ser Ala Glu Ser Ser Glu Arg Arg Lys Arg 150 155 Asn Arg Pro Ile Thr Asn Gly Ser Thr Leu Ser Glu Ser Glu Val Glu 165 170 175

Asp Ser Leu Ala Thr Ser Leu Ser Ser Ser Ala Ser Ser Ser Ser Glu

			180					185					190		
Glu	Ser	Lys	Glu	Ser	Ser	Arg	Ala	Arg	Glu	Ser	Ser	Ser	Arg	Ser	Gly
		195					200					205			
Leu	Ser	Arg	Ser	Ser	Asn	Leu	Arg	Val	Thr	Arg	Thr	Arg	Ala	Ala	Gln
	210					215					220				
Arg	Lys	Thr	Gly	Pro	Val	Ser	Leu	Ala	Asn	Gly	Cys	Gly	Arg	Lys	Ala
225					230					235					240
Thr	Arg	Lys	Arg	Val	Tyr.	Leu	Ser	Asp	Ser	Asp	Asn	Asn	Ser	Leu	Glu
				245					250					255	
Thr	Gly	Glu	He	Leu	Lys	Ala	Arg	Ala	Gly	Asn	Asn	Arg	Lys	Val	Leu
			260					265					270		
Arg	Lys	Cys	Ala	Ala	Val	Ala	Ala	Asn	Lys	He	Lys	Leu	Met	Ser	Asp
		275					280					285			
Val	Glu	Glu	Asn	Ser	Ser	Ser	Glu	Ser	Val	Cys	Ser	G] y	Arg	Lys	Leu
	290					295					300				
Pro	His	Arg	Asn	Ala	Ser	Ala	Val	Ala	Arg	Lys	Lys	Leu	Leu	His	Asn
305		•			310					315					320
Ser	Glu	Asp	Glu	Gln	Ser	Leu	Lys	Ser	Glu	He	Glu	Glu	Glu	Glu	Leu
				325					330					335	
Lys	Asp	Glu	Asn	Gln	Leu	Leu	Pro	Val	Ser	Ser	Ser	His	Thr	Ala	61n
			340					345					350		
Ser	Asn	Val	Asp	Glu	Ser	Glu	Asn	Arg	Asp	Ser	Glu	Ser	Glu	Ser	Asp
		355					360					365			
Leu	Arg	Val	Ala	Arg	Lys	Asn	Trp	His	Ala	Asn	Gly	Tyr	Lys	Ser	His
	370					375					380				
Thr	Pro	Ala	Pro	Ser	Lys	Thr	Lys	Phe	Leu	Lys	He	Glu	Ser	Ser	G] u
385					390					395					400
Glu	Asp	Ser	Lys	Ser	His	Asp	Ser	Asp	His	Ala	Cys	Asn	Arg	Thr	Ala
				405					410					415	
Gl y	Pro	Ser		Ser	Val	Gln	Lys		Lys	Ala	Glu	Ser	He	Ser	Glu
			420					425					430		
G] u	Ala		Ser	Glu	Pro	Gly		Ser	G1 y	Gly	Arg		Tyr	Asn	Thr
		435					440					445			
Phe		Lys	Asn	Ala	Ser	Phe	Phe	Lys	Lys	Thr		He	Leu	Ser	Asp
						4					100				
-	450		_			455 Glu					460				

465					470					475					480
His	Lys	Met	Glu		Asn	Pro	Пe	Ser		Asn	Leu	Asn	Cys		Pro
				485					490					495	
Пе	Ala	Met	Ser	Gln	Cys	Ser	Ser	Asp	His	Gly	Cys	Glu	Thr	Asp	Leu
			500					505					510		
Asp	Ser	Asp	Asp	Asp	Lys	He	Glu	Lys	Pro	Asn	Asn	Phe	Met	Lys	Asp
		515					520					525			
Ser	Ala	Ser	Gln	Asp	Asn	Glv	Leu	Ser	Arg	Lvs	He	Ser	Arg	Lvs	Arg
	530					535			C,		540		· ·	,	Ü
Vr.1		Sor	Sor	Acn	Sor		Sor	Sor	Lou	Gln.		Val	Lys	Lvc	Sor
	Cys	261	261	изр		пэр	361	361	Leu		\a1	v & 1	Lys	Lys	
545				m 1	550					555			0		560
Ser	Lys	Ala	Arg		Gly	Leu	Leu	Arg		lhr	Arg	Arg	Cys		Ala
		*		565					570					575	
Thr	Ala	Ala	Asn	Lys	He	Lys	Leu	Met	Ser	Asp	Val	Glu	Asp	Val	Ser
			580					585					590		
Leu	Glu	Asn	Val	His	Thr	Arg	Ser	Lys	Asn	Gly	Arg	Lys	Lys	Pro	Leu
		595					600					605			
His	Leu	Ala	Cys	Thr	Thr	Ala	Lys	Lys	Lys	Leu	Ser	Asp	Cys	Glu	G1 y
	610					615					620				
Ser	Val	His	Cys	Glu	Val	Pro	Ser	Glu	Gln	Tyr	Ala	Cys	Glu	Gly	Lys
625					630					635					640
Pro	Pro	Asp	Pro	Asp	Ser	Glu	Glv	Ser	Thr	Lvs	Val	Leu	Ser	Gln	Ala
		•		645			•		650	•				655	
Leu	Asn	GLv	Asn		Asn	Ser	Glu	Asn		Leu	Asn	Ser	Glu		Lvs
13.00	.1.511	C.a.y	660	001	.,,,,,	001	0.0	665	,nc t	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		00.1	670	111.5	15,0
111:	Δ	ш:		Α	11.	11.: _	1		Λ	۸1.	Duc	Con		Λ	lua
HIS	Arg		i III.	ASII	116	nis		116	ASP	AIA	rro		Lys	Arg	LyS
_	_	675			_		680			_	_	685			
Ser		Ser	Val	Thr	Ser		GI y	Glu	Asp	Ser	Lys	Ser	His	He	Pro
	690					695					700				
Gly	Ser	Glu	Thr	Asp	Arg	Thr	Phe	Ser	Ser	Glu	Ser	Thr	Leu	Ala	Gln
705					710					715					720
Lys	Ala	Thr	Ala	Glu	Asn	Asn	Phe	Glu	Val	Glu	Leu	Asn	Tyr	Gly	Leu
				725					730					735	
Arg	Arg	Trp	Asn	Gly	Arg	Arg	Leu	Arg	Thr	Tyr	Gly	Lys	Ala	Pro	Phe
			740					745					750		
Sor	Lve	Thr		Val	lle.	Hic	Aen		Gle	Glu	Thr	Ale	Glu	Lve	Gla

Val Lys Arg Lys Arg Ser His Pro Glu Leu Glu Asn Val Lys Ile Ser Glu Thr Thr Gly Asn Ser Lys Phe Arg Pro Asp Thr Ser Ser Lys Ser Ser Asp Leu Gly Ser Val Thr Glu Ser Asp Ile Asp Cys Thr Asp Asn Thr Lys Thr Lys Arg Arg Lys Thr Lys Gly Lys Ala Lys Val Val Arg Lys Glu Phe Val Pro Arg Asp Arg Glu Pro Asn Thr Lys Val Arg Thr Cys Met His Asn Gln Lys Asp Ala Val Gln Met Pro Ser Glu Thr Leu Lys Ala Lys Met Val Pro Glu Lys Val Pro Arg Arg Cys Ala Thr Val Ala Ala Asn Lys Ile Lys Ile Met Ser Asn

<210> 3797

<211> 874

<212> PRT

<213> Homo sapiens

<400> 3797

Pro Phe Ile Gln Lys Ile Tyr Pro Ala Asn Ala Lys Gly Met Val Glu

				85					90					95	
Lys	Trp	Leu	Gln	Gln	Val	Glu	Gln	Met	Met	Leu	Ala	Ser	Met	Arg	Glu
			100					105					110		
Val	Πe	Gly	Leu	Gly	He	Glu	Ala	Tyr	Val	Lys	Val	Pro	Arg	Asn	His
		115					120					125			
Trp	Vál	Leu	Gln	Trp	Pro	Gly	Gln	Val	Val	He	Cys	Val	Ser	Ser	He
	130					135					140				
Phe	Trp	Thr	Gln	Glu	Va]	Ser	Gln	Ala	Leu	Ala	Glu	Asn	Thr	Leu	Leu
145					150					155					160
Asp	Phe	Leu	Lys	Lys	Ser	Asn	Asp	Gln	11e	Ala	Gln	Tle	Val	Gln	Leu
				165					170					175	
Val	Arg	Gly	Lys	Leu	Ser	Ser	Gly	Ala	Arg	Leu	Thr	Leu	Gly	Ala	Leu
			180					185					190		
Thr	Val	11e	Asp	Val	His	Ala	Arg	Asp	Val	Val	Ala	Lys	Leu	Ser	Glu
		195					200					205			
Asp	Arg	Va1	Ser	Asp	Leu	Asn	Asp	Phe	Gln	Trp	lle	Ser	Gln	Leu	Arg
	210					215					220				
Tyr	Tyr	Trp	Val	Ala	Lys	Asp	Val	Gln	Val	Gln	He	He	Thr	Thr	Glu
225					230					235					240
Ala	Leu	Tyr	G1 y	Tyr	Glu	Tyr	Leu	Gly	Asn	Ser	Pro	Arg	Leu	Val	He
				245					250					255	
Thr	Pro	Leu	Thr	Asp	Arg	Cys	Tyr	Arg	Thr	Leu	Met	Gly	Ala	Leu	Lys
			260					265					270		
Leu	Asn	Leu	Gly	Gly	Ala	Pro	G] u	Gly	Pro	Ala	Gly	Thr	Gly	Lys	Thr
		275					280					285			
Glu		Thr	Lys	Asp	Leu	Ala	Lys	Ala	Leu	Ala		Gln	Cys	Val	Val
	290					295		_			300				
	Asn	Cys	Ser	Asp		Leu	Asp	Tyr	Lys		Met	G1 y	Lys	Phe	
305				a.	310	6.1				315			0.1	151	320
Lys	Gly	Leu	Ala		Ala	Gly	Ala	Trp		Cys	Phe	Asp	Glu		Asn
		0.7		325					330		0.1	0.1		335	0
Arg	He	Glu		GTu	Val	Leu	Ser		Val	Ala	GIn	GIn		Leu	Ser
1.1	C 1	61	340		1.7	Δ.	,	345	,	TI	וכו	7.7	350	C1	C I
11e	61n		Ala	116	He	Arg		Leu	Lys	ınr	rne		rne	61u	ыу
ть	C1.	355	C	1	Α	D	360	Cur	A 7 -	Ve 1	Dla a	365	Tlass	Mast	Λ
inr	UILL	Len	Ser	1.60	ASD	Pro	nnr	LVS	Λ La	val	rne	116	inr	ME I	ASD

	370					375					380				
Pro	Gly	Tyr	Ala	Gly	Arg	Ala	Glu	Leu	Pro	Asp	Asn	Leu	Lys	Ala	Leu
385					390					395					400
Phe	Arg	Thr	Val	Ala	Met	Met	Val	Pro	Asp	Tyr	Ala	Leu	He	Gly	Glu
				405					410					415	
Met	Ser	Leu	Tyr	Ser	Thr	Gly	Phe	Leu	Asp	Ser	Arg	Ser	Leu	Ala	Gln
			420					425					430		
Lys	He	Val	Ala	Thr	Tyr	Arg	Leu	Cys	Ser	Glu	Gln	Leu	Ser	Ser	Gln
		435					440					445			
His	His	Tyr	Asp	Tyr	Gly	Met	Arg	Ala	Val	Asn	Ser	Val	Leu	Thr	Ala
	450					455					460				
Ala	Gly	Asn	Leu	Lys	Leu	Lys	Tyr	Pro	Glu	Glu	Asn	Glu	Ser	Val	Leu
465					470					475					480
Leu	Leu	Arg	Ala	Leu	Leu	Asp	Val	Asn	Leu	Ala	Lys	Phe	Leu	Ala	Gln
				485					490					495	
Asp	Val	Pro	Leu	Phe	Gln	Gly	He	He	Ser	Asp	Leu	Phe	Pro	Gly	Val
			500					505					510		
Val	Leu	Pro	Lys	Pro	Asp	Tyr	Glu	Va]	Phe	Leu	Lys	Va]	Leu	Asn	Asp
		515			•		520					525			
Asn	He	Lys	Lys	Met	Lys	Leu	Gln	Pro	Val	Pro	Trp	Phe	He	Gly	Lys
	530					535					540				
lle	lle	Gln	He	Tyr	Glu	Met	Met	Leu	Val	Arg	His	Gly	Tyr	Met	He
545					550					555					560
Val	Gly	Asp	Pro	Met	Gly	Gly	Lys	Thr	Ser	Ala	Tyr	Lys	Val	Leu	Ala
				565					570					575	
Ala	Ala	Leu	G]y	Asp	Leu	His	Ala	Ala	Asn	Gln	Met	Glu	Glu	Phe	Ala
			580					585					590		
Val	Glu		Lys	Пe	He	Asn	Pro	Lys	Ala	Пе	Thr	Met	Gly	Gln	Leu
		595					600					605			
Tyr	Gly	Cys	Phe	Asp	Gln	Va]	Ser	His	Glu	Trp	Met	Asp	Gly	Val	Leu
	610					615					620				
	Asn	Ala	Phe	Arg		Gln	Ala	Ser	Ser		Ser	Asp	Asp	Arg	Lys
625					630					635					640
Trp	He	He	Phe	-	Gly	Pro	Va]	Asp		Пе	Trp	He	Glu		Met
				645					650					655	
Asn	Thr	Val	Leu	Asp	Asp	Asn	Lys	Lys	Leu	Cys	Leu	Met	Ser	Gly	Glu

			660					665					670		
He	Пе	Gln	Met	Asn	Ser	Lys	Met	Ser	Leu	Пе	Phe	Glu	Pro	Ala	Asp
		675					680					685			
Leu	Glu	Gln	Ala	Ser	Pro	Ala	Thr	Val	Ser	Arg	Cys	Gly	Met	lle	Tyr
	690					695					70.0				
Met	Glu	Pro	His	Gln	Leu	Gly	Trp	Lys	Pro	Leu	Lys	Asp	Ser	Туг	Met
705					710					715					720
Asp	Thr	Leu	Pro	Ser	Ser	Leu	Thr	Lys	Glu	His	Lys	Glu	Leu	Val	Asn
				725					730					735	
Asp	Met	Phe	Met	Trp	Leu	Val	Gln	Pro	Cys	Leu	Glu	Phe	Gly	Arg	Leu
			740					745					750		
llis	Cys	Lys	Phe	Val	Val	Gln	Thr	Ser	Pro	Пе	His	Leu	Ala	Phe	Ser
		755					760					765			
Met	Met	Arg	Leu	Tyr	Ser	Ser	Leu	Leu	Asp	Glu	Пе	Arg	Ala	Val	Glu
	770					775					780				
Glu	Glu	Glu	Met	Glu	Leu	Gly	Glu	Gly	Leu	Ser	Ser	Gln	Gln	11e	Phe
785					790					795					800
Leu	Trp	Leu	Gln	Gly	Leu	Phe	Leu	Phe	Ser	Leu	Val	Trp	Thr	Val	Ala
				805					810					815	
Gly	Thr	He	Asn	Ala	Asp	Ser	Arg	Lys	Lys	Phe	Asp	Val	Phe	Phe	Arg
			820					825			-		830		
Asn	Leu	He	Met	Gly	Met	Asp	Asp	Asn	His	Pro	Arg	Pro	Lys	Ser	Val
		835					840					845			
Lys	Leu	Thr	Lys	Asn	Asn	He	Phe	Pro	Glu	Arg	Gly	Ser	He	Tyr	Asp
	850					855					860				
Phe	Tyr	Phe	He	Lys	Gln	Ala	Ser	Gly	His						
865					870										

<210> 3798

<211> 184

<212> PRT

<213> Homo sapiens

<400> 3798

Met Glu Ser Ile Tyr Leu Gln Lys His Leu Gly Ala Cys Leu Thr Gln

10 Gly Leu Ala Glu Val Ala Arg Val Arg Pro Val Asp Pro 11e Glu Tyr 25 Leu Ala Leu Trp lle Tyr Lys Tyr Lys Glu Asn Val Thr Met Glu Gln 35 40 Leu Arg Gln Lys Glu Met Ala Lys Leu Glu Arg Glu Arg Glu Leu Ala 55 Leu Met Glu Gln Glu Met Met Glu Arg Leu Lys Ala Glu Glu Leu Leu 70 65 75 80 Leu Gln Gln Gln Leu Ala Leu Gln Leu Glu Leu Glu Met Gln Glu 85 90 Lys Glu Arg Gln Arg Ile Gln Glu Leu Gln Arg Ala Gln Glu Gln Leu 105 Gly Lys Glu Met Arg Met Asn Met Glu Asn Leu Val Arg Asn Glu Asp 115 120 125 lle Leu His Ser Glu Glu Ala Thr Leu Asp Ser Gly Lys Thr Leu Ala 135 140 Glu Ile Ser Asp Arg Tyr Gly Ala Pro Asn Leu Ser Arg Val Glu Glu 145 150 155 160 Leu Asp Glu Pro Met Phe Ser Asp Val Ser Ile Ser Val Phe Cys Glu 165 170 175 Lys Thr Arg Phe Cys Phe Cys Phe 180

<210> 3799

<211> 127

<212> PRT

<213> Homo sapiens

<400> 3799

Met Val Met Gly Tyr Ser Ala Gly Ala Leu His Trp Ser Gly Met Val

1 5 10 15

Cys Gln Cys Arg Ser Tyr Gly Val Gly Pro Gln Ser Pro Gln Asp Cys
20 25 30

Ser Ala Ser Arg Cys Gly Leu Ala Gly Ala Pro Gly Glu Ala Ser Arg

Ala Arg Gly Pro Gln Val Gly Leu Ala Leu Phe Asp Gly Gln Asp His Pro Ala Glu Phe Arg Ser Asp Asp Ser Pro Arg Ala Lys Val Ser Cys Gly Ser Lys Leu Ser Leu Val Gly Met Ala Val Pro Gly His Ser Pro Leu Gln Thr Leu Leu Arg Pro Thr Leu Trp Ala Pro His Gln Leu Ala Cys His Pro Tyr His Phe Ser Lys Gln Leu Ser Leu Thr Thr Arg

<210> 3800

<211> 156

<212> PRT

<213> Homo sapiens

<400> 3800

Met Ser Val Pro Thr Ser Thr Leu Asp Ser Gln Ser Pro Pro Thr Ala His Thr Ala Lys Cys Thr Ala Leu Cys Ser Leu Met Pro His Gly Ser Arg Glu His Ser Val Glu 11e Pro Lys Asp Gln Leu Ala Ser Pro Thr Glu Pro Arg Pro Trp Glu Gln Gln Cys Tyr His Gly Asn Gly Gln Ser Tyr Arg Gly Thr Tyr Phe Thr Thr Val Thr Gly Arg Thr Cys Gln Ala Trp Ser Ser Met Thr Pro His Gln His Ser Arg Thr Pro Glu Lys Tyr Pro Asn Ala Tyr Val Phe Val Leu Tyr His Lys Arg Arg Lys Gly Gln Leu Lys Phe Leu Leu Glu Glu Ser Cys Phe Glu Leu Thr Ala Gln Asp

Ser Thr Cys Val Arg Cys Lys Gly His Ser Lys Met Ser Gln Glu His

Cys Leu Gly Ala Lys Ser Leu Arg Glu Glu Lys Tyr <210> 3801 <211> 461 <212> PRT <213> Homo sapiens <400> 3801 Met Gly Val Ser Gly Pro Leu Val Leu Val Leu Ser Thr Glu Phe Arg His Leu Tyr Leu Pro Lys Tyr Glu Gln Thr Thr Tyr Thr Cys Ala His Val Ala Arg Glu Thr Ser Ala Leu Lys Leu Arg Pro Arg Val His Leu Ala Cys Val Leu Ser Val His Thr Pro Thr Lys His Pro Gly Ala Thr Pro Gly Ala Ser Ala Ile Gly Gly Cys Pro Phe Pro Glu Ala Gln Ala Pro Pro Ser Pro Ser Arg IIe Leu Arg Phe Pro Trp Gln Leu Val Gln Glu Gln Val Arg Gln Thr Met Ala Glu Ala Leu Lys Val Trp Ser Asp Val Thr Pro Leu Thr Phe Thr Glu Val His Glu Gly Arg Ala Asp 11e Met Ile Asp Phe Ala Arg Tyr Trp His Gly Asp Asp Leu Pro Phe Asp Gly Pro Gly Gly lle Leu Ala His Ala Phe Phe Pro Lys Thr His Arg Glu Gly Asp Val His Phe Asp Tyr Asp Glu Thr Trp Thr 11e Gly Asp Asp Gln Gly Thr Asp Leu Leu Gln Val Ala Ala His Glu Phe Gly His

Val Leu Gly Leu Gln His Thr Thr Ala Ala Lys Ala Leu Met Ser Ala

		195					200					205			
Phe	Tyr	Thr	Phe	Arg	Tyr	Pro	Leu	Ser	Leu	Ser	Pro	Asp	Asp	Cys	Arg
	210					215					220				
Gly	Va]	Gln	His	Leu	Tyr	Gly	Gln	Pro	Trp	Pro	Thr	Val	Thr	Ser	Arg
225					230					235					240
Thr	Pro	Ala	Leu	Gly	Pro	Gln	Ala	Gly	He	Asp	Thr	Asn	Glu	Пe	Ala
				245					250					255	
Pro	Leu	Glu	Pro	Asp	Ala	Pro	Pro	Asp	Ala	Cys	Glu	Ala	Ser	Phe	Asp
			260					265					270		
Ala	Val	Ser	Thr	11e	Arg	Gly	Glu	Leu	Phe	Phe	Phe	Lys	Ala	Gly	Phe
		275					280					285			
Val	Trp	Arg	Leu	Arg	Gly	Gly	Gln	Leu	Gln	Pro	Gly	Tyr	Pro	Ala	Leu
	290					295					300				
Ala	Ser	Arg	His	Trp	Gln	Gly	Leu	Pro	Ser	Pro	Va1	Asp	Ala	Ala	Phe
305					310					315					320
Glu	Asp	Ala	Gln	Gly	His	He	Trp	Phe	Phe	Gln	Gly	Ala	Gln	Tyr	Trp
				325					330					335	
Val	Tyr	Asp	Gly	Glu	Lys	Pro	Val	Leu	Gly	Pro	Ala	Pro	Leu	Thr	Glu
			340					345					350		
Leu	Gly	Leu	Val	Arg	Phe	Pro	Val	His	Ala	Ala	Leu	Val	Trp	Gly	Pro
		355					360					365			
Glu	Lys	Asn	Lys	He	Tyr	Phe	Phe	Arg	Gly	Arg	Asp	Tyr	Trp	Arg	Phe
	370					375					380				
His	Pro	Ser	Thr	Arg	Arg	Val	Asp	Ser	Pro	Val	Pro	Arg	Arg	Ala	Thr
385					390					395					400
Asp	Trp	Arg	Gly	Val	Pro	Ser	Glu	He	Asp	Ala	Ala	Phe	Gln	Лsp	Ala
				405					410					415	
Asp	Gly	Tyr	Ala	Tyr	Phe	Leu	Arg	Gly	Arg	Leu	Tyr	Trp	Lys	Phe	Asp
			420					425					430		
Pro	Val	Lys	Va]	Lys	Ala	Leu	Glu	Gly	Phe	Pro	Arg	Leu	Va]	Gly	Pro
		435					440					445			
Asp	Phe	Phe	Gly	Cys	Ala	G] u	Pro	Ala	Asn	Thr	Phe	Leu			
	450					455					460				

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<212> PRT
<213> Homo sapiens
<400> 3802
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Val Ala Lys Glu Gln Arg Leu His Phe Leu Lys Gln Gln Glu Arg Arg
             20
                                  25
                                                      30
Gln Gln Gln Ser lle Ser Glu Asn Glu Lys Leu Gln Lys Leu Lys Glu
                              40
                                                  45
Arg Val Glu Ala Gln Glu Asn Lys Leu Lys Lys Ile Arg Ala Met Arg
                         55
                                              60
Gly Gln Val Asp Tyr Ser Lys Ile Met Asn Gly Asn Leu Ser Ala Glu
65
                     70
                                          75
                                                              80
lle Glu Arg Phe Ser Ala Met Phe Gln Glu Lys Lys Gln Glu Val Gln
Thr Ala Ile Leu Arg Val Asp Gln Leu Ser Gln Gln Leu Glu Asp Leu
            100
                                 105
                                                     110
Lys Lys Gly Lys Leu Asn Gly Phe Gln Ser Tyr Asn Gly Lys Leu Thr
        115
                             120
Gly Pro Ala Ala Val Glu Leu Lys Arg Leu Tyr Gln Glu Leu Gln 11e
                        135
                                             140
Arg Asn Gln Leu Asn Gln Glu Gln Asn Ser Lys Leu Gln Gln Gln Lys
145
                    150
                                         155
                                                             160
Glu Leu Leu Asn Lys Arg Asn Met Glu Val Ala Met Met Asp Lys Arg
                                     170
lle Ser Glu Leu Arg Glu Arg Leu Tyr Gly Lys Lys lle Gln Leu Asn
            180
                                 185
                                                     190
Arg Val Asn Gly Thr Ser Ser Pro Gln Ser Pro Leu Ser Thr Ser Gly
        195
                            200
                                                 205
Arg Val Ala Ala Val Gly Pro Tyr lle Gln Val Pro Ser Ala Gly Ser
                        215
                                             220
Phe Pro Val Leu Gly Asp Pro Ile Lys Pro Gln Ser Leu Ser Ile Ala
225
                    230
                                         235
                                                             240
```

Ser Asn Ala Ala His Gly Arg Ser Lys Ser Ala Asn Asp Gly Asn Trp

<211> 628

				245					250					255	
Pro	Thr	Leu	Lys	Gln	Asn	Ser	Ser	Ser	Ser	Val	Lys	Pro	Val	Gln	Val
			260					265					270		
Ala	Gly	Ala	Asp	Trp	Lys	Asp	Pro	Ser	Val	Glu	Gly	Ser	Val	Lys	Gln
		275					280					285			
Gly	Thr	Val	Ser	Ser	Gln	Pro	Val	Pro	Phe	Ser	Ala	Leu	Gly	Pro	Thr
	290					295					300				
Glu	Lys	Pro	Gly	Пе	Glu	lle	Gly	Lys	Val	Pro	Pro	Pro	lle	Pro	Gly
305					310					315					320
Val	Gly	Lys	Gln	Leu	Pro	Pro	Ser	Tyr	Gly	Thr	Tyr	Pro	Ser	Pro	Thr
				325					330					335	
Pro	Leu	Gly		Gly	Ser	Thr	Ser	Ser	Leu	Glu	Arg	Arg		Glu	Gly
			340					345				6.3	350		<i>(</i> 1)
Ser	Leu		Arg	Pro	Ser	Μą.		Leu	Pro	Ser	Arg		Arg	Pro	Thr
,	1	355	. 1	TEL	6.1	C	360	D	C1	D	C1	365	C	C1	61
Leu		Pro	Ala	Ihr	GIŸ		Ihr	Pro	6In	Pro		Ser	Ser	GIn	GIn
11.	370	Cln	Λωσ	11.	Con	375	Dro	Dno	Son	Dro	380	Tur	Dro	Dro	Δla
385	GIN	GIII	Arg	116	390	vai	110	Pro	261	395	1111	1 9 1	110	F10	400
	Pro	Pro	Ala	Phe		Ala	G1 v	Asp	Sor		Pro	Glu	Len	Pro	
01,	130	110	AIG	405	110		01,	пор	410	L,S	110	ora	Dea	415	Leu
Thr	Val	Ala	He		Pro	Phe	l.eu	Ala		Lvs	Glv	Ser	Arg		Gln
			420	0				425		,	3		430		
Ser	Pro	Arg	Lys	Gly	Pro	Gln	Thr	Val	Asn	Ser	Ser	Ser	lle	Tyr	Ser
		435					440					445			
Met	Tyr	Leu	Gln	GIn	Ala	Thr	Pro	Pro	Lys	Asn	Tyr	Gln	Pro	Ala	Ala
	450					455					460				
His	Ser	Ala	Leu	Asn	Lys	Ser	Val	Lys	Ala	Val	Tyr	Gly	Lys	Pro	Val
465					470					475					480
Leu	Pro	Ser	Gly	Ser	Thr	Ser	Pro	Ser	Pro	Leu	Pro	Phe	Leu	His	Gly
				485					490					495	
Ser	Leu	Ser	Thr	Gly	Thr	Pro	Gln	Pro	Gln	Pro	Pro	Ser	Glu	Ser	Thr
			500					505					510		
Glu	Lys	Glu	Pro	Glu	Gln	Asp	Gly	Pro	Ala	Ala	Pro		Gly	Pro	Thr
		515					520					525			
Ser	Arg	Ser	Cys	Cys	Thr	Ser	Ala	Ser	Thr	Leu	Ser	Pro	Thr	Lys	Leu

530 535 540 Thr Pro Ile Val His Ser Pro Leu Arg Tyr Gln Ser Asp Ala Asp Leu 550 555 Glu Ala Leu Arg Arg Lys Leu Ala Asn Ala Pro Arg Pro Leu Lys Lys 570 565 Arg Ser Ser lle Thr Glu Pro Glu Gly Pro Phe Leu Pro Ala Gln Pro 585 Leu Pro Gly Leu His Gly His Leu Gly Arg Cys Gly Gln Trp Lys His 595 600 605 Gln Cys Gln Trp Lys Pro Gly Arg Ala Pro Pro Cys Pro Ala His Ser 610 615 620 Pro Thr Pro Arg 625 <210> 3803 <211> 167 <212> PRT <213> Homo sapiens <400> 3803 Met Pro Met Lys Pro Pro Arg Cys Thr Arg Thr Ser Arg Ser Ser Cys 5 10 Ser Arg Thr Thr Leu Arg Pro Ala Ala Ser Pro Asn Thr Thr Ser Ser 25 Arg Gly Leu Thr Val His Pro Pro Cys Ser Ser Lys Leu Arg Met Asp Pro Thr Pro Ala Trp Pro Ala Ser Cys Glu Ala Leu Met Gly Pro Ser 50 55 60 Ser Ser Ala Gly Pro Ala Arg Leu Arg Leu Pro Pro Arg Arg His Ser 65 70 75 Ser Leu Pro Pro Arg Arg Ala Ser Phe Leu lle Val Ser Arg Ala Ser 90 Lys Ser Trp Glu Cys Ala Gly Pro Val Pro Ala Leu Pro Gly Gly Val 100 110

Val Ala Val Pro Thr Ser Gln Gln Asp Pro Gln Cys Arg Gly Ser Gln

Val Ala His Arg Arg Cys Leu Ser Arg Ala Ile Leu Gln Ser Gly Pro Gln Cys Gln Ser Cys Leu Ser Ile Trp Val Thr Ser Ala Arg Ser Arg Val Gln Ala Ser Ser Arg Ser <210> 3804 <211> 344 <212> PRT <213> Homo sapiens <400> 3804 Met Glu Pro Leu Glu lle Pro Val Glu Thr lle Thr Ser Glu Val lle Glu Lys Cys Thr Thr Pro Leu Ser Asp Asp His Asp Glu Lys Tyr Gly Val Pro Ser Leu Glu Glu Leu Gly Phe Asp Thr Asp Gly Leu Ser Ser Ala Val Trp Pro Gly Gly Glu Thr Glu Ala Leu Thr Arg Leu Glu Arg His Leu Glu Arg Lys Ala Trp Val Ala Asn Phe Glu Arg Pro Arg Met Asn Ala Asn Ser Leu Leu Ala Ser Pro Thr Gly Leu Ser Pro Tyr Leu Arg Phe Gly Cys Leu Ser Cys Arg Leu Phe Tyr Phe Lys Leu Thr Asp Leu Tyr Lys Lys Val Lys Lys Asn Ser Ser Pro Pro Leu Ser Leu Tyr Gly Gln Leu Leu Trp Arg Glu Phe Phe Tyr Thr Ala Ala Thr Asn Asn Pro Arg Phe Asp Lys Met Glu Gly Asn Pro Ile Cys Val Gln Ile Pro

Trp Asp Lys Asn Pro Glu Ala Leu Ala Lys Trp Ala Glu Gly Arg Thr

				165					170					175	
G]y	Phe	Pro	Trp	He	Asp	Ala	lle	Met	Thr	Gln	Leu	Arg	Gln	Glu	G1 y
			180					185					190		
Trp	He	His	His	Leu	Ala	Arg	His	Ala	Val	Ala	Cys	Phe	Leu	Thr	Arg
		195					200					205			
Gly	Asp	Leu	Trp	He	Ser	Trp	Glu	Gl u	Gly	Met	Lys	Val	Phe	Glu	Glu
•	210					215					220				
Leu	Leu	Leu	Asp	Ala	Asp	Trp	Ser	lle	Asn	Ala	Gly	Ser	Trp	Met	Trp
225					230					235					240
Leu	Ser	Cys	Ser	Ser	Phe	Phe	Gln	Gln	Phe	Phe	His	Cys	Tyr	Cys	Pro
				245					250					255	
Val	Gly	Phe	G] y	Arg	Arg	Thir	Asp	Pro	Asn	Gly	Asp	Tyr	Пе	Arg	Arg
			260					265					270		
Tyr	Leu	Pro	Val	Leu	Arg	Gly	Phe	Pro	Ala	Lys	Tyr	Пе	Tyr	Asp	Pro
		275					280					285			
		Ala	Pro	Glu	Gly	He	Gln	Lys	Val	Ala	Lys	Cys	Leu	He	Gly
	290					295					300				
	Asn	Tyr	Pro	Lys		Met	Val	Asn	His		Glu	Ala	Ser	Arg	Leu
305					310					315					320
Asn	He	Glu	Arg		Lys	G1n	He	Tyr		G1n	Leu	Ser	Arg		Arg
				325					330					335	
Gly	Leu	Glu		Phe	Phe	Val	Leu								
	•		340												
			·												
<210	> 38	805													
<211	> 48	35													
<212	> PF	?T													
<213	> Hc	omo s	sapie	ens											
<400	> 38	805													
Met.	Asp	Asn	Glu	Cys	Val	Ala	Gln	Thr	Trp	Phe	Arg	Phe	Leu	His	Met
1				<u>_</u>					10					1 =	

Leu Ser Asn Pro Val Asp Leu Ser Asn Pro Ala lle lle Ser Ser Thr

- 25 Pro Lys Phe Gln Glu Gln Phe Leu Asn Val Ser Gly Met Pro Gln Glu

		35					40					45			
Leu	Asn	Gln	Tyr	Pro	Cys	Leu	Lys	His	Leu	Pro	Gln	He	Phe	Phe	Arg
	50					55					60				
Ala	Met	Arg	Gly	He	Ser	Cys	Leu	Val	Asp	Ala	Phe	Leu	Gly	He	Ser
65					70					75					80
Arg	Pro	Arg	Ser	Asp	Ser	Ala	Pro	Pro	Thr	Pro	Val	Asn	Arg	Leu	Ser
				85					90					95	
Met	Pro	Gln	Ser	Ala	Ala	Val	Ser	Thr	Thr	Pro	Pro	llis	Asn	Arg	Arg
			100					105					110		
His	Arg	Ala	Val	Thr	Val	Asn	Lys	Ala	Thr	Met	Lys	Thr	Ser	Thr	Val
		115					120					125			
Ser	Thr	Ala	His	Ala	Ser	Lys	Val	Gln	His	Gln	Thr	Ser	Ser	Thr	Ser
	130					135					140				
Pro	Leu	Ser	Ser	Pro	Asn	Gln	Thr	Ser	Ser	Glu	Pro	Arg	Pro	Leu	Pro
145					150					155					160
Ala	Pro	Arg	Arg	Pro	Lys	Val	Asn	Ser	He	Leu	Asn	Leu	Phe	Gly	Ser
				165					170					175	
Tŗp	Leu	Phe	Asp	Ala	Ala	Phe	Val	His	Cys	Lys	Leu	His	Asn	Gly	He
			180					185					190		
Asn	Arg		Ser	Ser	Met	Thr		He	Thr	Thr	Gln		Ser	Met	Glu
		195					200					205			
Phe		Arg	Lys	Gly	Ser	G1n	Met	Ser	Thr	Asp	Thr	Met	Val	Ser	Asn
	210				_	215		_			220				
	Met	Phe	Asp	Ala		G1u	Phe	Pro	Asp		Tyr	Glu	Ala	Gly	
225	6.1		C	<i>(</i>) 1	230					235					240
Ala	Glu	Ala	Cys		Ihr	Leu	Cys	Arg			Cys	Ser	Lys		Thr
C1	C1	C1	11-	245	D	A 1 .	т		250		DI	т	и.	255	
θŦŘ	OTU	GIU		Leu	Pro	Ala	ıyr		ser	Arg	Phe	lyr		Leu	Leu
110	Cla	C1	260	C1.5	II.	A	Λ	265 T	V = 1	C	112 -	D	270	1	4.1
116	OIII	275	Leu	GIH	116	Asn		ryr	vai	Cys	mis	285	vai	Leu	Ala
Sor	Val		Lou	Aen	Sor	Pro	280 Pro	Laui	Dha	Ċve	Cuo		Lau	Luc	C1
ecl	290	116	r.eu	uell	190	295	110	Leu	тпе	CyS	300	лър	ren	LyS	оту
He		Val	Val	Va1	Pro	7yr	Pho	Ha	Ser	Ala		Glu	Thr	114	Lou
305	asp	* (11	. (11	1.03	310	1 3 1	1110	116	OC1	315	Leu	010	1111	эл	320
	Asn	Aro	Glo	Leu		lve	Phe	Lve	Sor		Val	Acr	Pro	The	

				325					330					335	
Leu	Arg	Arg	Ser	Ser	He	Asn	11e	Leu	Leu	Ser	Leu	Leu	Pro	Leu	Pro
			340					345					350		
His	His	Phe	Gly	Thr	Va]	Lys	Ser	Glu	Val	Val	Leu	Glu	Gly	Lys	Phe
		355					360					365			
Ser	Asn	Asp	Asp	Ser	Ser	Ser	His	Asp	Lys	Pro	11e	Thr	Phe	Leu	Ser
	370					375					380				
Leu	Lys	Leu	Arg	Leu	Val	Asn	11e	Leu	He	Gly	Ala	Leu	Gln	Thr	Glu
385					390					395					400
Thr	Asp	Pro	Asn	Asn	Thr	Gln	Met	He	Leu	Gly	Ala	Met	Leu	Asn	lle
				405					410					415	
Va]	Gln	Asp	Ser	Ala	Leu	Leu	Glu	Ala	Пе	G1 y	Cys	Gln	Met	Glu	Met
			420					425					430		
Gly	Gly	Gly	Glu	Asn	Asn	Leu	Lys	Ser	His	Ser	Arg	Thr	Asn	Ser	Gly
		435					440					445			
Пе	Ser	Ser	Ala	Ser	Gly	Gly	Ser	Thr	Glu	Pro	Thr	Thr	Pro	Asp	Ser
	450					455					460				
Glu	Arg	Pro	Ala	G]n	Ala	Leu	Leu	Arg	Val	Met	Leu	Leu	He	Gln	He
465					470					475					480
Gln	Leu	Leu	Gly	Ser											
				485											

<210> 3806

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3806

 Met
 Phe
 Ala
 Cys
 Ala
 Lys
 Leu
 Ala
 Cys
 Thr
 Pro
 Ser
 Leu
 Jle
 Arg
 Ala

 I
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 10
 10
 15
 15
 15

 Gly
 Ser
 Arg
 Val
 Ala
 Tyr
 Arg
 Pro
 Ile
 Ser
 Ala
 Ser
 Val
 Leu
 Ser
 Gln

 Pro
 Glu
 Ala
 Ser
 Arg
 Thr
 Gly
 Glu
 Gly
 Ser
 Ala
 Val
 Phe
 Asn
 Gly
 Ala

 35
 40
 40
 45
 45
 45
 45
 45

Gln Asn Gly Val Ser Gln Leu lle Gln Arg Gly Phe Gln Thr Ser Ala

lle Ser Arg Asp lle Asp Thr Ala Ala Lys Phe lle Gly Ala Gly Ala Ala Thr Val Gly Val Ala Gly Ser Gly Ala Gly Ile Gly Thr Val Phe Gly Ser Leu Ile Ile Gly Tyr Ala Arg Asn Pro Ser Leu Lys Gln Gln Leu Phe Ser Tyr Ala lle Leu Gly Phe Ala Leu Ser Glu Ala Met Gly Leu Phe Cys Leu Met Val Ala Phe Leu Ile Leu Phe Ala Met <210> 3807

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3807

Met His Ser Lys Leu Ser His Cys Phe Phe Val Pro Leu Thr Cys 11e

Ser Trp Ile Met Leu Phe Leu Asp Phe Leu Phe Arg Ala Val Arg Ile

His Phe Leu Leu Cys His Cys Lys Ile Leu Ala Gly Ser Pro Ile Thr

Val Cys Thr Ala Leu Ser Cys Arg Gln Gly Gln Gly Glu Thr Ser Ala

Met Ala Ser Tyr Val Ala Arg Asn Leu Leu Met Ser Pro Ser Lys Thr

Val Gly Pro Ala Ser Ala Arg Pro Cys Ala Leu Lys Ser Ser Pro Tyr

Gly Glu Met Gly Leu Gly

<211> 101

<212> PRT <213> Homo sapiens <400> 3808 Met Pro Pro Arg Ser Leu Ser Cys His His Gly Thr Gly Trp Ala Trp 10 Arg Phe Gly Arg His Trp Lys Leu Arg Gly Glu Glu Ala Gly His Leu 20 25 Arg Gly Leu Gly His Leu Gly Gly Gln Gly Glu Arg Phe Gly Gly His 40 45 Gly Ala Gly Arg Phe Gly Ala Leu Gly Glu Asp Phe Gln Gly Leu Gly 55 Ser Pro Gly Gly Gly Ala Glu Arg Gly Gln Arg Ser Leu Asn Ser Arg 75 65 Pro Pro Trp Leu His Pro Gly Asn Gly Pro Leu Leu Leu Arg His Arg 90 Asp Ala Val Ala His 100 <210> 3809 <211> 131 <212> PRT <213> Homo sapiens <400> 3809 Met Arg Glu Phe Ser Leu Ile Glu Leu Trp Leu Met Pro Lys Val Phe 1 5 10 Asn His Tyr Val Trp Gly Ser Phe Leu Val Gln Arg Lys Lys Gln 25 Pro Lys Ser Val Leu Val Tyr His Cys Thr Ser Gly Asn Leu Asn Pro 40 Cys Asn Arg Gly Lys Met Gly Phe Gln Val Leu Ala Thr Phe Glu Ile 50 55 Pro lle Pro Phe Glu Arg Ala Leu Thr Arg Pro Tyr Ala Asp Phe Thr

Thr Ser Asn Phe Arg Thr Gln Tyr Trp Asn Ala lle Ser Gln Gln Ala Pro Ala Ile Ile Tyr Asp Phe Tyr Leu Trp Leu Thr Gly Arg Lys Pro Ser Tyr Arg Arg Lys Ile Pro Ser Ser Thr Gln Phe Tyr Lys Trp Arg Asn Arg Ser <210> 3810 <211> 140 <212> PRT <213> Homo sapiens <400> 3810 Met Pro Asn Pro Asp Gly Tyr Ile Ile Cys Trp Leu Gln Val Ser Leu Thr Ala Arg Phe Ala Ser Ala Glu Lys Ser His Gly Glu Ser Arg Thr His Glu Val Leu Ser His 11e Cys Thr Ser Glv Val Val Ala Val His Ser Pro Leu Asp Ala Val Ser Trp Pro Cys Phe His Pro 11e Pro Val Gly Arg Val Gly Gly Trp Val Gly Glu Ala 11e Glu Cys Met Thr Gln Thr Lys Leu Ser Trp Ala Phe Ser Pro Thr Arg Glu Ala Leu Met Ser Phe Ile Glu Ala Leu Lys His Gln Ser Leu Ser Gln Ala Ser Ser Gln Thr Phe Cys Asn Met Ser Ala Leu Thr Arg Phe Lys Ala Asn Val Phe Pro Cys Arg Glu Glu Gly Ala Leu Arg Leu Ile Asp

<210> 3811 <211> 157 <212> PRT <213> Homo sapiens <400> 3811 Met Lys Leu Lys Cys lle Phe Gly Phe Ala Thr Lys Glu Thr Ser Cys 5 10 15 Tyr Asn Val Thr Asn Ile Gly Phe Lys Ser Pro Ser Asp Phe Trp Gln 25 Ser Val His Ser Thr Leu Pro Arg Glu Leu Ala Pro Cys Leu Val Phe 40 45 Asn Thr Ser Pro Asn Leu Ala Leu Phe Ser Ala Ala Phe Ala Phe Ile 50 55 60 Val Val Lys Asp Ser Ala Gly Asp Ser Asp Val Val Gln Glu Leu 70 75 Lys Ser Met Val Ala Thr Lys Ile Ala Lys Tyr Ala Val Pro Asp Glu 90 85 Ile Leu Val Val Lys Arg Leu Pro Lys Thr Arg Ser Gly Lys Val Met 105 110 Arg Arg Leu Leu Arg Lys Ile Ile Thr Ser Glu Ala Gln Glu Leu Gly 120 125

<210> 3812

145

130

<211> 1591

<212> PRT

<213> Homo sapiens

<400> 3812

Met Val Gln Gly Arg Val Thr Glu Val Lys Phe Pro Leu Glu His Tyr

Asp Thr Thr Leu Glu Asp Pro Ser Ile Ile Ala Glu Ile Leu Ser

140

155

135

Val Tyr Gln Lys Cys Lys Asp Lys Gln Ala Ala Ala Lys

1				5					10					15	
He	Leu	Glu	Leu	Gln	Asp	His	Arg	Val	Ala	Leu	Asn	Gly	Ser	His	Ser
			20					25					30		
Glu	Lys	Val	Ala	He	Leu	Asp	Asp	Lys	Thr	Ala	Met	Va1	Thr	Ala	Ser
		35					40					45			
Gln	Leu	Gly	Gln	Thr	Asn	Leu	Val	Phe	Va1	His	Lys	Asn	Val	His	Met
	50					55					60				
Arg	Ser	Val	Ser	Gly	Leu	Pro	Asn	Cys	Thr	lle	Tyr	Val	Val	Glu	Pro
65					70					75					80
Gly	Phe	Leu	Gly	Phe	Thr	Val	Gln	Pro	Gly	Asn	Arg	Trp	Ser	Leu	Glu
				85					90					95	
Val	Gly	Gln	Val	Tyr	Val	He	Thr	Val	Asp	Val	Phe	Asp	Lys	Ser	Ser
			100					105					110		
Thr	Lys	Val	Tyr	He	Ser	Asp	Asn	Leu	Arg	He	Thr	Tyr	Asp	Phe	Pro
		115					120					125			
Lys		Tyr	Phe	Glu	Glu		Leu	Thr	Thr	Val		Gly	Ser	Tyr	His
	130					135					140				
	Va]	Lys	Ala	Leu		Asp	G1 y	Val	Val		He	Asn	Ala	Ser	Leu
145	_			_	150					155					160
Thr	Ser	He	He		GIn	Asn	Lys	Asp		GIn	Pro	He	Lys	Phe	Leu
			0.1	165	0.1			7.3	170	P.1				175	
He	Lys	HIS		GIn	Glu	Val	Lys		lyr	Phe	Pro	He		Leu	Thr
D.		101	180	4.1	DI	D		185	D		<i>c</i> 1		190	Tr.	
rro	Lys		Leu	Ala	Phe	Pro		HIS	Pro	Met	GIy		Leu	Tyr	Arg
Tun	Lvc	195	Cln	Vol	C1	C1	200	Can	C1	Aon	Dho	205	Tun	Thr	Com
1 y 1	210	vai	UIII	vai	GTu	215	OTY	sei	Gry	ASII	220	1111	пр	1111	261
Ser		Glu	Thr	Val	Val		Val	Thr	Thr	lve		Val	Val	Thr	Ala
225	ASII	Olu	1111	101	230	110	101	1111	1111	235	Ory	101	1 61 1	1111	240
	Gln	Val	Arø	Glv		Ser	Thr	Val	Leu		Arø	Asn	Val	Gln	
<i>-</i>	· · · · ·		6	245	71011	50,		,01	250	711 ()	111 8	, rop		255	71011
Pro	Phe	Arg	Tvr		Glu	11e	Lvs	Пe		Val	Leu	Lvs	Leu	Asn	Lvs
		0	260					265				-2,	270		
Met	Glu	Leu		Pro	Phe	His	Ala		Val	Glu	He	Glv		11e	He
		275					280	•				285			
G111	Tle	Pro	Tle	Ala	Mot	Tyr		Ha	Acn	lve	Glu		Lve	Clu	Ala

	290					295					300				
Met	Ala	Phe	Thr	Asp	Cys	Ser	His	Leu	Ser	Leu	Asp	Leu	Asn	Met	Asp
305					310					315					320
Lys	Gln	Gly	Val	Phe	Thr	Leu	Leu	Lys	Glu	Gly	He	Gln	Arg	Pro	Gly
				325					330					335	
Pro	Met	His	Cys	Ser	Ser	Thr	His	lle	Ala	Ala	Lys	Ser	Leu	Gly	His
			340					345					350		
Thr	Leu	Val	Thr	Val	Ser	Val	Asn	Glu	Cys	Asp	Lys	Tyr	Leu	Glu	Ser
		355					360					365			
Ser	Ala	Thr	Phe	Ala	Ala	Tyr	Glu	Pro	Leu	Lys	Ala	Leu	Asn	Pro	Val
	370					375					380				
Glu	Val	Ala	Leu	Val	Thr	Trp	Gln	Ser	Va1	Lys	Glu	Met	Val	Phe	Glu
385					390					395					400
Gly	Gly	Pro	Arg	Pro	Trp	He	Leu	Glu	Pro	Ser	Arg	Phe	Phe	Leu	Glu
				405					410					415	
Leu	Asn	Ala	Glu	Lys	Thr	Glu	Lys	He	Gly	He	Ala	Gln	Val	Trp	Leu
			420		,			425					430		
Pro	Ser	Lys	Arg	Lys	Gln	Asn	Gln	Tyr	He	Tyr	Arg	lle	Gln	Cys	Leu
		435					440					445			
Asp	Leu	Gly	Glu	Gln	Val	Leu	Thr	Phe	Arg	He	Gly	Asn	His	Pro	Gly
	450					455					460				
Val	Leu	Asn	Pro	Ser	Pro	Ala	Val	Glu	Val	Leu	Gln	Val	Arg	Phe	Пе
465					470					475					480
Cys	Ala	His	Pro	Ala	Ser	Met	Ser	Val	Thr	Pro	Val	Tyr	Lys	Val	Pro
				485					490					495	
Ala	Gly	Ala	Gln	Pro	Cys	Pro	Leu	Pro	Gln	His	Asn	Lys	Trp	Leu	lle
			500					505					510		
Pro	Val	Ser	Arg	Leu	Arg	Asp	Thr	Val	Leu	Glu	Leu	Ala	Val	Phe	Asp
		515					520					525			
Gln	His	Arg	Arg	Lys	Phe	Asp	Asn	Phe	Ser	Ser	Leu	Met	Leu	Glu	Trp
	530					535					540				
Lys	Ser	Ser	Asn	Glu	Thr	Leu	Ala	His	Phe	G] u	Asp	Tyr	Lys	Ser	Val
545					550					555					560
Glu	Met	Val	Ala	Lys	Asp	Gly	Gly	Ser	Gly	Gln	Thr	Arg	Leu	His	Gly
				565					570					575	
His	Gln	He	Leu	Lys	Val	His	Gln	Пе	Lys	Gly	Thr	Val	Leu	He	Gly

			580					585					590		
Val	Asn	Phe	Val	Gly	Tyr	Ser	Glu	Lys	Lys	Ser	Pro	Lys	Glu	He	Ser
		595					600					605			
Asn	Leu	Pro	Arg	Ser	Val	Asp	Val	Glu	Leu	Leu	Leu	Val	Asp	Asp	Val
	610					615					620				
Thr	Val	Val	Pro	Glu	Asn	Λla	Thr	Пе	Tyr	Asn	His	Pro	Asp	Val	Lys
625					630					635					640
Glu	Thr	Phe	Ser	Leu	Val	Glu	Gly	Ser	Gly	Tyr	Phe	Leu	Val	Asn	Ser
				645					650					655	
Ser	Glu	Gln	Gly	Val	Va]	Thr	He	Thr	Tyr	Met	Glu	Ala	Glu	Ser	Ser
			660					665					670		
Val	Glu	Leu	Val	Pro	Leu	His	Pro	Gly	Phe	Phe	Thr	Leu	Glu	Val	Tyr
		675					680					685			
Asp	Leu	Cys	Leu	Ala	Phe	Leu	Gly	Pro	Ala	Thr	Ala	His	Leu	Arg	Val
	690					695					700				
Ser	Asp	lle	Gln	Glu	Leu	Glu	Leu	Asp	Leu	He	Asp	Lys	Val	Glu	Пе
705					710					715					720
Asp	Lys	Thr	Val	Leu	Val	Thr	Val	Arg	Val	Leu	G1y	Ser	Ser	Lys	Arg
				725					730					735	
Pro	Phe	Gln	Asn	Lys	Tyr	Phe	Arg	Asn	Met	G1u	Leu	Lys	Leu	Gln	Leu
			740					745					750		
Ala	Ser	Ala	He	Val	Thr	Leu	Thr	Pro	Met	Glu	Gln	Gln	Asp	Glu	Tyr
		755					760					765			
Ser	Glu	Asn	Tyr	He	Leu	Arg	Ala	Thr	Thr	He	Gly	G1n	Thr	Thr	Leu
	770					775					780				
Val	Ala	lle	Ala	Lys	Asp	Lys	Met	Gly	Arg	Lys	Tyr	Thr	Ser	Thr	Pro
785					790					795					800
Arg	His	He	Glu	Val	Phe	Pro	Pro	Phe	Arg	Leu	Leu	Pro	Glu	Lys	Met
				805					810					815	
Thr	Leu	He	Pro	Met	Asn	Met	Met	Gln	Va]	Met	Ser	Glu	G1 y	Gly	Pro
			820					825					830		•
G1n	Pro		Ser	He	Val	His		Ser	He	Ser	Asn	Gln	Thr	Val	Ala
		835					840					845			
Val	Val	Asn	Arg	Arg	Gly		Val	Thr	Gly	Lys		Val	Gly	Thr	Ala
	850					855					860				
Val	Vol	Hic	C1v	The	116	C1n	Thr	Vol	Acn	C10	Acn	Thr	C1v	Lvc	Val

865					870					875					880
lle	Val	Phe	Ser	Gln	Asp	Glu	Val	Gln	He	Glu	Val	Val	Gln	Leu	Arg
				885					890					895	
Ala	Val	Arg	He	Leu	Ala	Ala	Ala	Thr	Arg	Leu	Пе	Thr	Ala	Thr	Lys
			900					905					910		
Met	Pro	Val	Tyr	Val	Met	Gly	Va]	Thr	Ser	Thr	Gln	Thr	Pro	Phe	Ser
		915					920					925			
Phe	Ser	Asn	Ala	Asn	Pro	Gly	Leu	Thr	Phe	His	Trp	Ser	Met	Ser	Lys
	930					935					940				
Arg	Asp	Val	Leu	Asp	Leu	Val	Pro	Arg	His	Ser	Glu	Val	Phe	Leu	Gln
945					950					955					960
Leu	Pro	Val	Glu	His	Asn	Phe	Ala	Met	Val	Val	His	Thr	Lys	Ala	Ala
				965					970					975	
Gly	Arg	Thr	Ser	He	Lys	Val	Thr	Val	His	Cys	Met	Asn	Ser	Ser	Ser
			980					985					990		
Gly	Gln	Phe	Glu	Gly	Asn	Leu	Leu	Glu	Leu	Ser	Asp	Glu	Val	Gln	lle
		995]	000					1005			
Leu	Val	Phe	Glu	Lys	Leu	Gln	Leu	Phe	Tyr	Pro	Glu	Cys	Gln	Pro	Glu
	010				-	1015					1020				
l		Leu	Met	Pro		1015	Ser	Gln	Leu		1020	His	Thr	Asn	Arg
l	He	Leu	Met			1015	Ser	Gln			1020	His	Thr		Arg 1040
1 Gln 1025	lle				11e 1030	1015 Asn	Ser Ser			Lys 1035	1020 Leu			•	1040
1 Gln 1025	lle		Ala		11e 1030	1015 Asn		Arg		Lys 1035	1020 Leu		Phe	•	1040
1 Gln 1025 Glu	lle Gly	Ala	Ala	Phe 1045	11e 1030 Val	1015 Asn Ser		Arg	Val 1050	Lys 1035 Leu	1020 Leu Lys	Cys	Phe	Pro 1055	1040 Asn
1 Gln 1025 Glu	lle Gly	Ala Val	Ala	Phe 1045	11e 1030 Val	1015 Asn Ser	Ser Gly	Arg	Val 1050	Lys 1035 Leu	1020 Leu Lys	Cys Lys	Phe	Pro 1055	1040 Asn
1025 Glu Ser	lle Gly Ser	Ala Val	Ala 11e 1060	Phe 1045 Glu	Ile 1030 Val Glu	1015 Asn Ser Asp	Ser Gly	Arg Glu 1065	Val 1050 Gly	Lys 1035 Leu Leu	1020 Leu Lys Leu	Cys Lys	Phe Ala 1070	Pro 1055 Gly	1040 Asn Ser
1025 Glu Ser	lle Gly Ser	Ala Val	Ala 11e 1060	Phe 1045 Glu	Ile 1030 Val Glu	Asn Ser Asp Leu	Ser Gly	Arg Glu 1065	Val 1050 Gly	Lys 1035 Leu Leu	Leu Lys Leu	Cys Lys	Phe Ala 1070	Pro 1055 Gly	1040 Asn Ser
Gln 1025 Glu Ser	lle Gly Ser Ala	Ala Val Gly 1075	Ala lle 1060 Thr	Phe 1045 Glu Ala	11e 1030 Val Glu Val	Asn Ser Asp Leu	Ser Gly Glu	Arg Glu 1065 Val	Val 1050 Gly Thr	Lys 1035 Leu Leu Ser	Leu Lys Leu	Cys Lys Glu 1085	Phe Ala 1070 Pro	Pro 1055 Gly Phe	1040 Asn Ser Gly
Gln 1025 Glu Ser Ile	lle Gly Ser Ala	Ala Val Gly 1075	Ala lle 1060 Thr	Phe 1045 Glu Ala	Ile 1030 Val Glu Val	Asn Ser Asp Leu	Ser Gly Glu 1080	Arg Glu 1065 Val	Val 1050 Gly Thr	Lys 1035 Leu Leu Ser	Leu Lys Leu	Cys Lys Glu 1085	Phe Ala 1070 Pro	Pro 1055 Gly Phe	1040 Asn Ser Gly
Gln 1025 Glu Ser Ile Val	Gly Ser Ala Asn	Ala Val Gly 1075 Gln	Ala 11e 1060 Thr	Phe 1045 Glu Ala	Ile 1030 Val Glu Val	Asn Ser Asp Leu Thr	Ser Gly Glu 1080	Arg Glu 1065 Val	Val 1050 Gly Thr	Lys 1035 Leu Leu Ser Val	Leu Lys Leu IIe Ala	Cys Lys Glu 1085 Pro	Phe Ala 1070 Pro Val	Pro 1055 Gly Phe	1040 Asn Ser Gly Tyr
Gln 1025 Glu Ser Ile Val	Gly Ser Ala Asn 1090 Arg	Ala Val Gly 1075 Gln	Ala 11e 1060 Thr	Phe 1045 Glu Ala Thr	Ile 1030 Val Glu Val	Asn Ser Asp Leu Thr	Ser Gly Glu 1080 Gly	Arg Glu 1065 Val	Val 1050 Gly Thr Gln	Lys 1035 Leu Leu Ser Val	Leu Lys Leu IIe Ala	Cys Lys Glu 1085 Pro	Phe Ala 1070 Pro Val	Pro 1055 Gly Phe Thr	1040 Asn Ser Gly Tyr
Gln 1025 Glu Ser Ile Val Leu 1105	Gly Ser Ala Asn 1090 Arg	Ala Val Gly 1075 Gln Val	Ala 11e 1060 Thr Thr	Phe 1045 Glu Ala Thr	Ile 1030 Val Glu Val Ile Gln 1110	Asn Ser Asp Leu Thr 1095 Pro	Ser Gly Glu 1080 Gly	Arg Glu 1065 Val Val	Val 1050 Gly Thr Gln	Lys 1035 Leu Leu Ser Val Thr	Leu Lys Leu He Ala	Cys Lys Glu 1085 Pro Gln	Phe Ala 1070 Pro Val	Pro 1055 Gly Phe Thr	1040 Asn Ser Gly Tyr Thr
Gln 1025 Glu Ser Ile Val Leu 1105	Gly Ser Ala Asn 1090 Arg	Ala Val Gly 1075 Gln Val	Ala Ile 1060 Thr Ser	Phe 1045 Glu Ala Thr	Ile 1030 Val Glu Val Ile Gln 1110	Asn Ser Asp Leu Thr 1095 Pro	Ser Gly Glu 1080 Gly Lys	Arg Glu 1065 Val Val Leu Ser	Val 1050 Gly Thr Gln	Lys 1035 Leu Leu Ser Val Thr	Leu Lys Leu He Ala	Cys Lys Glu 1085 Pro Gln	Phe Ala 1070 Pro Val Gly Val	Pro 1055 Gly Phe Thr	1040 Asn Ser Gly Tyr Thr
Gln 1025 Glu Ser Ile Val Leu 1105 Leu	Gly Ser Ala Asn 1090 Arg Ser	Ala Val Gly 1075 Gln Val	Ala 11e 1060 Thr Ser	Phe 1045 Glu Ala Thr Ser Pro	Ile 1030 Val Glu Val Ile Gln 1110 Leu	Asn Ser Asp Leu Thr 1095 Pro	Ser Gly Glu 1080 Gly Lys	Arg Glu 1065 Val Val Leu Ser	Val 1050 Gly Thr Gln Tyr Leu	Lys 1035 Leu Leu Ser Val Thr	Leu Lys Leu Ala Ala Ala Phe	Cys Lys Glu 1085 Pro Gln Thr	Phe Ala 1070 Pro Val Gly Val	Pro 1055 Gly Phe Thr Arg Gln	1040 Asn Ser Gly Tyr Thr 1120 Phe
Gln 1025 Glu Ser Ile Val Leu 1105 Leu	Gly Ser Ala Asn 1090 Arg Ser	Ala Val Gly 1075 Gln Val Ala	Ala 11e 1060 Thr Ser	Phe 1045 Glu Ala Thr Ser Pro	Ile 1030 Val Glu Val Ile Gln 1110 Leu	Asn Ser Asp Leu Thr 1095 Pro	Ser Gly Glu 1080 Gly Lys Met	Arg Glu 1065 Val Val Leu Ser	Val 1050 Gly Thr Gln Tyr Leu	Lys 1035 Leu Leu Ser Val Thr	Leu Lys Leu Ala Ala Ala Phe	Cys Lys Glu 1085 Pro Gln Thr	Phe Ala 1070 Pro Val Gly Val	Pro 1055 Gly Phe Thr Arg Gln	1040 Asn Ser Gly Tyr Thr 1120 Phe

-		1155					1160					1165			
Λsn	Tyr	Thr	Tyr	Met	Ala	Gln	Ala	Val	Asn	Arg	Gly	Leu	Thr	Leu	Va]
	1170					1175					1180				
Gly	Leu	Trp	Asp	Arg	Arg	His	Pro	Gly	Met	Ala	Asp	Tyr	Пе	Pro	Va1
118	5				1190					1195					1200
Ala	Val	Glu	His	Ala	He	Glu	Pro	Asp	Thr	Lys	Leu	Thr	Phe	Val	Gly
				1205					1210		•			1215	
Asp	He	He	Cys	Phe	Ser	Thr	His	Leu	Val	Ser	Gln	His	Gly	Glu	Pro
			1220	•				1225					1230		
Gly	lle	Trp	Met	He	Ser	Ala	Asn	Asn	He	Leu	Gln	Thr	Asp	Ile	Val
		1235					1240					1245			
Thr	Gly	Val	Gly	Val	Ala	Arg	Ser	Pro	Gly	Thr	Ala	Met	Ile	Phe	His
	1250					1255					1260				
Asp	Пе	Pro	Gly	Val	Val	Lys	Thr	Tyr	Arg	Glu	Val	Val	Val	Asn	Ala
1265	5				1270					1275					1280
Ser	Ser	Arg	Leu	Met	Leu	Ser	Tyr	Asp	Leu	Lys	Thr	Tyr	Leu	Thr	Asn
				1285					1290]	1295	
Thr	Leu	Asn	Ser	Thr	Val	Phe	Lys	Leu	Phe	lle	Thr	Thr	Gly	Arg	Asn
			1300					1305					1310		
Gly	Val	Asn	Leu	Lys	Gly	Phe	Cys	Thr	Pro	Asn	Gln	Ala	Leu	Ala	He
		1315					1320				-	1325			
Thr	Lys	Val	Leu	Leu	Pro	Ala	Thr	Leu	Met	Leu	Cys	His	Val	Gln	Phe
1	330					1335				İ	1340				
Ser	Asn	Thr	Leu	Leu	Asp	He	Pro	Ala	Ser	Lys	Val	Phe	Gln	Val	His
1345	5				1350					1355]	1360
Ser	Asp	Phe	Ser	Met	Glu	Lys	Gly	Val	Tyr	Va]	Cys	lle	He	Lys	Val
				1365					1370				_	1375	
Arg	Pro	Gln	Ser	G] u	Glu	Leu	Leu	Gln	Ala	Leu	Ser	Val	Ala	Asp	Thr
			1380					1385					1390		
Ser			G]y	Trp	Ala			Val	Ser	Glu	Arg	Ser	Lys	Asn	Gly
		1395					1400					1405			
		Arg	He	Leu			Phe	Не	Pro			Tyr	He	Asn	Gln
	410		17 1			415		0.1			420	0.7			
		Leu	val			HIS	Lys	GIn			ыу	61u	Пe		
1425)				430					435				1	1440

Leu Gly Val Asp Arg Val Leu Arg Lys Leu Glu Val Ile Ser Ser Ser 1445 1450 Pro Val Leu Val Val Ala Gly His Ser His Ser Pro Leu Thr Pro Gly 1465 1460 1470 Leu Ala 11e Tyr Ser Val Arg Val Val Asn Phe Thr Ser Phe Gln Gln 1480 1485 1475 Met Ala Ser Pro Val Phe Ile Asn Ile Ser Cys Val Leu Thr Ser Gln 1495 1500 Ser Glu Ala Val Val Arg Ala Met Lys Asp Lys Leu Gly Ala Asp 1505 1510 1515 1520 His Cys Glu Asp Ser Ala lle Leu Lys Arg Phe Thr Gly Ser Tyr Gln 1525 1530 lle Leu Leu Leu Thr Leu Phe Ala Val Leu Ala Ser Thr Ala Ser lle 1540 15451550 Phe Leu Ala Tyr Ser Ala Phe Leu Asn Lys Ile Gln Thr Val Pro Val 1555 1560 1565 Val Tyr Val Pro Thr Leu Gly Thr Pro Gln Pro Gly Phe Leu Thr Pro 1570 1575 1580 Gln Val Leu Pro Leu Thr Ser 1585 1590

<210> 3813

<211> 623

<212> PRT

<213> Homo sapiens

<400> 3813

Met Ser Asp Leu Arg Val Gln Leu Asn Phe Ser Ala Met Ala Ser Glu

1 5 10 15

Leu Glu Glu Val Lys Arg Cys Met Glu Arg Lys Asp Lys Glu Lys Ala 20 25 30

His Leu Ala Ser Gln Val Glu Asn Leu Thr Arg Glu Leu Glu Asn Gly

35 40 45

Glu Lys Gln Gln Leu Gln Met Leu Asp Arg Leu Lys Glu Ile Gln Asn 50 55 60

His	Phe	Asp	Thr	Cys	Glu	Ala	Glu	Arg	Lys	His	Ala	Asp	Leu	Gln	He
65					70					75					80
Ser	Glu	Leu	Thr	Arg	His	Ala	Glu	Asp	Ala	Thr	Lys	Gln	Ala	Glu	Arg
				85					90					95	
Tyr	Leu	Ser	Glu	Leu	Gln	Gln	Ser	Glu	Ala	Leu	Lys	Glu	Glu	Ala	Glu
			100					105					110		
Lys	Arg	Arg	Glu	Asp	Leu	Lys	Leu	Lys	Ala	Gln	Glu	Ser	11e	Arg	Gln
		115					120					125			
Trp	Lys	Leu	Lys	His	Lys	Lys	Leu	Glu	Arg	Ala	Leu	Glu	Lys	Gln	Ser
	130					135					140				
Glu	Thr	Val	Asp	Glu	Leu	Thr	Gly	Lys	Asn	Asn	Gln	11e	Leu	Lys	Glu
145					150					155					160
Lys	Asp	Glu	Leu	Lys	Thr	Gln	Leu	Tyr	Ala	Ala	Leu	Gln	Gln	Пе	Glu
				165					170					175	
Asn	Leu	Arg	Lys	Glu	Leu	Asn	Asp	Val	Leu	Thr	Lys	Arg	Ala	Leu	Gln
			180					185					190		
Glu	Glu	Glu	Leu	His	Ser	Lys	Glu	Glu	Lys	Leu	Arg	Asp	lle	Lys	Ser
		195					200					205			
His	Gln	Ala	Asp	Leu	Glu	Leu	Glu	Val	Lys	Asn	Ser	Leu	Asp	Thr	He
	210					215					220				
His	Arg	Leu	Glu	Ser	Glu	Leu	Lys	Lys	Gln	Ser	Lys	He	Gln	Ser	Gln
225					230		d			235					240
Met	Lys	Val	Glu	Lys	Ala	His	Leu	Glu	Glu	Glu	He	Ala	Glu	Leu	Lys
				245					250					255	
Lys	Ser	Gln	Ala	Gln	Asp	Lys	Ala	Lys	Leu	Leu	Glu	Met	Gln	Glu	Ser
			260					265					270		
lle	Lys	Asp	Leu	Ser	Ala	He	Arg	Ala	Asp	Leu	Ala	Asn	Lys	Leu	Ala
,		275					280					285			
Glu	Glu	Glu	Arg	Ala	Lys	Lys	Ala	Val	Leu	Lys	Asp	Leu	Ser	Asp	Leu
	290					295					300				
Thr	Ala	Gln	Alа	Lys	Ser	Arg	Asp	Glu	Glu	Thr	Ala	Thr	Пе	He	Thr
305					310					315					320
Gln	Leu	Lys	Leu	Glu	Arg	Asp	Val	His	Gln	Arg	G] u	Leu	Lys	Asp	Leu
				325					330					335	
Thr	Ser	Ser	Leu	Gln	Ser	Val	Lys	Thr	Lys	His	Glu	Gln	Asn	He	Gln
			340					345					350		

Glu	Leu	Met	Lys	His	Phe	Lys	Lys	Glu	Lys	Ser	Glu	Ala	Glu	Asn	His
		355					360					365			
11e	Arg	Thr	Leu	Lys	Ala	Glu	Ser	Leu	Glu	Glu	Lys	Asn	Met	Ala	Lys
	370					375					380				
11e	His	Arg	Gly	G1n	Leu	Glu	Lys	Leu	Lys	Ser	Gln	Cys	Asp	Arg	Leu
385					390					395					400
Thr	Glu	Glu	Leu	Thr	Gln	Asn	Glu	Asn	Glu	Λsn	Lys	Lys	Leu	Lys	Leu
				405					410					415	
Lys	Tyr	Gln	Cys	Leu	Lys	Asp	Gln	Leu	Glu	Glu	Arg	Glu	Lys	His	He
			420					425					430		
Ser	He	Glu	Glu	G] u	His	Leu	Arg	Arg	Met	Glu	Glu	Ala	Arg	Leu	Gln
		435					440					445			
Leu	Lys	Asp	Gln	Leu	Leu	Cys	Leu	Glu	Thr	Glu	Gln	Glu	Ser	He	Leu
	450					455					460				
Gly	Val	Пе	Gly	Lys	Glu	He	Asp	Ala	Ala	Cys	Lys	Thr	Phe	Ser	Lys
465					470					475					480
Asp	Ser	Val	Glu	Lys	Leu	Lys	Val	Phe	Ser	Ser	Gly	Pro	Asp	lle	His
				485					490					495	
Tyr	Asp	Pro	His		Trp	Leu	Ala	Glu		Lys	Thr	Lys	Leu		Trp
Tyr	Asp	Pro	His 500		Trp	Leu	Ala	G1u 505		Lys	Thr	Lys	Leu 510		Trp
			500	Arg	Trp Lys			505	Ser				510	Gln	
			500	Arg				505	Ser				510	Gln	
Leu	Cys	Glu 515	500 Glu	Arg Leu		Glu	Arg 520	505 Glu	Ser Asn	Arg	Glu	Lys 525	510 Asn	Gln Leu	Arg
Leu	Cys	Glu 515	500 Glu	Arg Leu	Lys	Glu	Arg 520	505 Glu	Ser Asn	Arg	Glu	Lys 525	510 Asn	Gln Leu	Arg
Leu His	Cys 61n 530	Glu 515 Leu	500 Glu Met	Arg Leu Leu	Lys	Glu Arg 535	Arg 520 Gln	505 Glu Gln	Ser Asn Leu	Arg Arg	Glu Asn 540	Lys 525 Leu	510 Asn Thr	Gln Leu Glu	Arg Asn
Leu His	Cys 61n 530	Glu 515 Leu	500 Glu Met	Arg Leu Leu	Lys Cys	Glu Arg 535	Arg 520 Gln	505 Glu Gln	Ser Asn Leu	Arg Arg	Glu Asn 540	Lys 525 Leu	510 Asn Thr	Gln Leu Glu	Arg Asn
Leu His Lys 545	Cys Gln 530 Glu	Glu 515 Leu Ser	500 Glu Met Glu	Arg Leu Leu Leu	Lys Cys Gln	Glu Arg 535 Cys	Arg 520 Gln Leu	505 Glu Gln Phe	Ser Asn Leu Gln	Arg Arg Gln 555	Glu Asn 540 Ile	Lys 525 Leu Glu	510 Asn Thr Arg	Gln Leu Glu Gln	Arg Asn Glu 560
Leu His Lys 545	Cys Gln 530 Glu	Glu 515 Leu Ser	500 Glu Met Glu	Arg Leu Leu Leu	Lys Cys Gln 550	Glu Arg 535 Cys	Arg 520 Gln Leu	505 Glu Gln Phe	Ser Asn Leu Gln	Arg Arg Gln 555	Glu Asn 540 Ile	Lys 525 Leu Glu	510 Asn Thr Arg	Gln Leu Glu Gln	Arg Asn Glu 560
Leu His Lys 545 Gln	Cys Gln 530 Glu Leu	Glu 515 Leu Ser	500 Glu Met Glu Asp	Arg Leu Leu Leu Glu 565	Lys Cys Gln 550	Glu Arg 535 Cys His	Arg 520 Gln Leu Arg	505 Glu Gln Phe Glu	Ser Asn Leu Gln Lys 570	Arg Arg Gln 555 Arg	Glu Asn 540 Ile Asp	Lys 525 Leu Glu Leu	510 Asn Thr Arg Leu	Gln Leu Glu Gln Glu 575	Arg Asn Glu 560 Glu
Leu His Lys 545 Gln	Cys Gln 530 Glu Leu	Glu 515 Leu Ser	500 Glu Met Glu Asp	Arg Leu Leu Leu Glu 565	Lys Cys Gln 550 Ile	Glu Arg 535 Cys His	Arg 520 Gln Leu Arg	505 Glu Gln Phe Glu	Ser Asn Leu Gln Lys 570	Arg Arg Gln 555 Arg	Glu Asn 540 Ile Asp	Lys 525 Leu Glu Leu	510 Asn Thr Arg Leu	Gln Leu Glu Gln Glu 575	Arg Asn Glu 560 Glu
Leu His Lys 545 Gln Thr	Cys Gln 530 Glu Leu Gln	Glu 515 Leu Ser Leu	500 Glu Met Glu Asp Lys 580	Arg Leu Leu Glu 565 Asp	Lys Cys Gln 550 Ile	Glu Arg 535 Cys His	Arg 520 Gln Leu Arg	50561uG1nPheG1uG1y585	Asn Leu Gln Lys 570 Ser	Arg Arg Gln 555 Arg Leu	Glu Asn 540 Ile Asp Gln	Lys 525 Leu Glu Leu	510 Asn Thr Arg Leu Arg 590	Gln Leu Glu Gln Glu 575 Val	Arg Asn Glu 560 Glu
Leu His Lys 545 Gln Thr	Cys Gln 530 Glu Leu Gln	Glu 515 Leu Ser Leu	500 Glu Met Glu Asp Lys 580	Arg Leu Leu Glu 565 Asp	Lys Cys Gln 550 Ile Glu	Glu Arg 535 Cys His	Arg 520 Gln Leu Arg	50561uG1nPheG1uG1y585	Asn Leu Gln Lys 570 Ser	Arg Arg Gln 555 Arg Leu	Glu Asn 540 Ile Asp Gln	Lys 525 Leu Glu Leu	510 Asn Thr Arg Leu Arg 590	Gln Leu Glu Gln Glu 575 Val	Arg Asn Glu 560 Glu
Leu His Lys 545 Gln Thr	Cys Gln 530 Glu Leu Gln Leu	Glu 515 Leu Ser Leu Arg Glu 595	500 Glu Met Glu Asp Lys 580 Thr	Leu Leu Leu Glu 565 Asp	Lys Cys Gln 550 Ile Glu	Glu Arg 535 Cys His Glu Gln	Arg 520 Gln Leu Arg Met Val 600	505 Glu Gln Phe Glu Gly 585 Ala	Asn Leu Gln Lys 570 Ser Leu	Arg Arg Gln 555 Arg Leu Asp	Glu Asn 540 Ile Asp Gln His	Lys 525 Leu Glu Leu Asp Leu 605	510 Asn Thr Arg Leu Arg 590 Glu	Gln Leu Glu Gln 575 Val	Arg Asn Glu 560 Glu

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Pro Gln Glu Lys Asn Ser Phe Ser Asp Val Phe Val Val Gly Glu Tyr
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                                 25
                                                      30
Phe Cys His Cys Phe Glu Lys Thr Ser Pro Pro Asn Ser Pro Ser Phe
                             40
Leu Gly IIe Ser Phe Leu Lys Trp Lys Ala Phe Asn IIe His Ser Lys
                         55
Leu Ala Leu Leu Leu Pro Gln Gly Lys lle Thr Ser Lys Gln Arg Cys
                     70
                                         75
Leu Pro Ser Val Ser Gly Gly Ala Ser Leu Arg Gly Gly Leu Cys Asp
                 85
                                     90
Pro Leu Pro Gly Gly Gly Asp Gly Gly His Leu Phe Ile Asn Asp Val
            100
                                105
                                                     110
Arg Leu Lys Val Thr Glu Pro Phe Leu His Met Pro Leu Cys Arg Glu
                            120
                                             . 125
Leu Cys IIe Asn Thr Leu Leu Gly Arg Thr Glu Gln Asp Trp Glu Leu
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Arg Ala Asn Pro Phe Leu Arg Ala Ser Asn Ser
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Met Arg Trp Gly Met Pro Pro Gln Asp Ala Phe Thr Thr Gln Trp Leu
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<210> 3814

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Ser	Leu	Phe	Met	Arg	His	Leu	Cys	Glu	Pro	Gly	Ala	Asp	Gly	Ser	Glu
		35					40					45			
Thr	Phe	Ala	Asp	Gly	Val	Pro	Arg	Glu	Gly	Leu	Ser	Arg	Gln	Gln	Val
	50					55					60				
Leu	Thr	Arg	He	G1y	Val	Met	Ser	Leu	Val	Lys	Lys	Lys	Val	Gln	Glu
65					70					75					80
Phe	Glu	His	He	Asn	Gly	Arg	Trp	Ser	Met	Pro	Glu	Leu	Met	Pro	Asp
				85					90					95	
Pro	Ser	Ala	Asp	Ser	Lys	Arg	Ser	Ser	Arg	Ala	Ser	Ser	Pro	Thr	Lys
			100			-		105					110		
Thr	Ser	Pro	Thr	Thr	Pro	Glu	Ala	Ser	Ala	Thr	Asn	Ser	Pro	Cys	Thr
		115					120					125			
Ser	Lys	Pro	Ala	Thr	Pro	Ala	Pro	Ser	Glu	Lys	Gly	Glu	Gly	He	Arg
	130					135					140				
Thr	Pro	Leu	Glu	Lys	Glu	Glu	Ala	Glu	Asn	Gln	Glu	Glu	Lys	Pro	Glu
145					150					155					160
Lys	Asn	Ser	Arg	11e	Gly	Glu	Lys	Met	Glu	Thr	Glu	Ala	Asp	Ala	Pro
		•		165					170					175	
Ser	Pro	Ala		Ser	Leu	Gly	Glu		Leu	Glu	Pro	Arg	Lys	He	Pro
			180					185					190		
Leu	Glu		Glu	Val	Pro	Gly		Pro	Gly	Glu	Met		Pro	Glu	Pro
		195					200					205			
Gly		Arg	G] y	Asp	Arg	G]u	Lys	Ser	Ala	Thr		Ser	Thr	Pro	Gly
0.7	210			4.3		215					220				
	Arg	01 y	Glu	GJu		Pro	Leu	Asp	Gly		Glu	His	Arg	Glu	
225 D	61	C.1	6.1	TC I	230			0.1		235		0.1			240
Pro	61u	61y	61u		Gly	Asp	Leu			Arg	Ala	61u	Asp		Lys
C1			C.I	245		13	C.1		250		C1	Б		255	
61 y	Asp	Arg		Leu	Arg	Pro	GIŸ		Arg	Asp	Glu	Pro		Ser	Asn
C1	•		260	C1		TI	C1	265	13		DI		270		7.1
61 y	Arg	Arg	GIU	61u	Lys	Thr	61u	Lys	Pro	Arg	rne	Met	rhe	Asn	He
		975					200					905			
11.	A	275	C1) Dl- ::	тъ.	C1	280	111.	Tl	1	т	285	Λ.	C1	C1
D 1.11	uzb	$O(1)_{k}$	$\alpha_{1\lambda}$	LHG	1111	Glu	Leu	HIS	TUT.	reu	1 Lb	oin	asn	$u_{1}u$	010

	290					295					300				
Arg	Ala	Ala	He	Ser	Ser	Gly	Lys	Leu	Asn	Glu	Пе	Trp	His	Arg	Arg
305					.310					315					320
His	Asp	Tyr	Trp	Leu	Leu	Λla	Gly	Пе	Val	Leu'	His	Gly	Tyr	Ala	Arg
				325					330					335	
Trp	Gln	Asp	He	Gln	Asn	Asp	Ala	G1n	Phe	Ala	Пе	He	Asn	Glu	Pro
			340					345					350		
Phe	Lys	Thr	Glu	Ala	Asn	Lys	Gly	Asn	Phe	Leu	Glu	Met	Lys	Asn	Lys
		355					360					365			
Phe	Leu	Ala	Arg	Arg	Phe	Lys	Leu	Leu	Glu	Gln	Ala	Leu	Val	He	Glu
	370					375					380				
G.l u	Gln	Leu	Arg	Arg	Ala	Ala	Tyr	Leu	Asn	Leu	Ser	61n	Glu	Pro	Ala
385					390					395					400
His	Pro	Ala	Met	Ala	Leu	His	Ala	Arg	Phe	Ala	Glu	Ala	Glu	Cys	Leu
				405					410					415	
Ala	Glu	Ser	His	Gln	His	Leu	Ser	Lys	Glu	Ser	Leu	Ala	Gly	Asn	Lys
			420					425					430		
Pro	Ala	Asn	Ala	Val	Leu	His	Lys	Val	Leu	Asn	Gln	Leu	Glu	Glu	Leu
		435					440					445			
Leu	Ser	Asp	Met	Lys	Ala	Asp	Val	Thr	Arg	Leu	Pro	Ala	Thr	Leu	Ser
	450					455					460				
Arg	He	Pro	Pro	He		Ala	Arg	Leu	Gln		Ser	Glu	Arg	Ser	
465					470					475					480
Leu	Ser	Arg	Leu		Ser	Lys	Gly	Thr		Pro	His	Pro	Thr		Ala
_				485					490		_			495	
Tyr	Pro	Pro		Pro	Tyr	Ala	Thr			G1 y	Tyr	Gly			Phe
_			500					505					510		
Ser	Ala		Pro	Val	G] y	Ala		Ala	Ala	Ala	Gly		Asn	Tyr	Ser
		515					520				mı	525	0.3	475	
GIn	Met	Pro	·Ala	Gly	Ser		He	Hhr	Ala	Ala		Asn	GIy	Pro	Pro
X7 1	530	17. 1	,		C.1	535	C 1		X2 1	C.1	540		17 1	C	
	Leu	Val	Lys	Lys		Lys	6 Lu	Меt	val		Ala	Leu	val	Ser	
545	ī	Δ.	Δ.		550	D.	A .	a 1	C 1	555	V . 1	11.	C	7.7	560
GIY	Leu	Asp	Arg		Glu	rro	Arg	Ala		610	vai	11e	Cys		лѕр
Asn				565					570					575	

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Val Gln Val Lys Pro 11e Gln His Leu Ala Pro Cys Leu Gln Ala

140

135

<210> 3817

130

<211> 123

<212> PRT

<213> Homo sapiens

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Met Lys Tyr Phe Ala Pro Ser Arg Gly Pro Gln Leu Ser Leu Gln Val 10 Leu Leu Trp Arg Leu Asn Leu Pro Pro Val Ser Arg Ser Ser Gln Leu 25 Ser Leu Leu Ser Phe Leu Gly Arg Trp Asn Phe Leu Arg Pro Arg Arg 40 Pro Pro Thr Leu Pro Pro Glu Ser Ser Ile Glu Ser Val Ala Gln Thr 55 60 Pro Leu Asn His Glu Val Thr Val Gln Thr Gln Gly Glu Asp Gln Ala 65 70 75 His Tyr Thr Leu Pro Ser Ile Thr Val Lys Pro Ala Asp Val Glu Ile 90 85 Ser lle Thr Ser Glu Pro Thr Thr Asp Thr Asp Ser Ser Pro Ala Gln 100 105 110 Gln Ala Ala Pro Asn Gln His Pro Glu Gln Val 115 120

<210> 3818

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Glu Ser Ala Gln Ile Tyr Ser Ala Glu Tyr Arg Phe Val Gln Thr Thr

85 90 95

Ala Ala Leu Gln Phe IIe Val Thr Ser Lys Gly Lys Gly Gln Lys Asn 100 105 110

He

<210> 3819

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3819

Met Trp His Val Thr Ala Tyr Phe Ser Leu Leu Leu Arg Ala Pro Ser 1 5 10 15

Glu Gly 11e Gln 11e Pro Val 11e His Thr 11e Glu Val Lys Ser Phe 20 25 30

Gln lle Arg Lys Ala Gln Phe Phe Leu Gln Arg Cys Leu Phe lle Phe 35 40 45

Ile Val Ser Ile Ser Phe Lys Asn Leu His Glu Glu Ser Ile Cys Phe 50 55 60

Cys Leu Lys Glu Asn Ser Pro Gly Phe Glu Leu Asn Ser Ala Leu Ala 65 70 75 80

Arg Leu Tyr Pro Phe Pro Lys Glu Lys Ser Lys Val Ser Thr Tyr Ser

85 90 95

Lys Arg Met Ser Pro Gly Phe Ser Ile Leu Glu Ser Leu Ile Ser Pro 100 105 110

Thr lle Leu Glu Arg Ser Lys 115

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<212> PRT

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<400> 3820

Met	Asn	Thr	Ala	Asn	Ser	Leu	Cys	Leu	Gly	Gly	Thr	Pro	Ala	Ser	Ala
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Ser	Ser	Ser	Ser	Ser	Arg	Ala	Ala	Pro	Leu	Val	Thr	Ser	Gly	Lys	Ala
			20					25					30		
Pro	Pro	Asn	Leu	Pro	Gln	Gly	Val	Pro	Pro	Leu	Leu	His	Asn	Gln	Tyr
		35					40					45			
Leu	Val	Gly	Pro	Gly	Gly	Leu	Leu	Pro	Ala	Tyr	Pro	He	Tyr	Gly	Tyr
	50					55					60				
Asp	Glu	Leu	Gln	Met	Leu	Gln	Ser	Arg	Leu	Pro	Val	Asp	Tyr	Tyr	Gly
65					70					75					80
Пе	Pro	Phe	Ala	Ala	Pro	Thr	Ala	Leu	Ala	Ser	Arg	Asp	Gly	Ser	Leu
				85					90					95	
Ala	Asn	Asn	Pro	Tyr	Pro	Gly	Asp	Val	Thr	Lys	Phe	Gly	Arg	Gly	Asp
			100					105					110		
Ser	Ala	Ser	Pro	Ala	Pro	Ala	Thr	Thr	Pro	Ala	Gln	Pro	Gln	Gln	Ser
		115					120					125			
Gln	Ser	Gln	Thr	His	His	Thr	Ala	Gln	Gln	Pro	Phe	Val	Asn	Pro	Ala
	130					135					140				
Leu	Pro	Pro	Gly	Tyr	Ser	Tyr	Thr	GIy	Leu	Pro	Tyr	Tyr	Thr	G]y	Met
145					150					155					160
Pro	Ser	Ala	Phe		Tyr	Gly	Pro	Thr	Met	Phe	Val	Pro	Pro	Ala	Ser
				165					170					175	
Ala	Lys	Gln		Gly	Val	Asn	Leu	Ser	Thr	Pro	Thr	Pro	Pro	Phe	Gln
			180					185					190		
Gln	Ala		Gly	Tyr	Gly	GIn	His	Gly	Tyr	Ser	Thr	Gly	Tyr	Asp	Asp
		195					200					205			
Leu		GIn	Gly	Thr	Ala		G1y	Asp	Tyr	Ser		Gly	G1 y	Tyr	Ala
	210	~				215		_			220				
	Ser	Ser	GIn	Ala		Asn	Lys	Ser	Ala		Ser	Gly	Pro	Gly	
225				0	230		·n.			235					240
ыу	Val	Ser	Val		Ser	Ser	Thr	Thr		Leu	Pro	Asp	Met		Gly
_		m		245	m.				250					255	
ser	val	lyr		Lys	Thr	GIn	Thr		Asp	Lys	GIn	Gly		His	Ala
C 1	T)	D	260 D	D	DI	6	,	265	6		,	0.7	270		
υГУ	Thr		Pro	Pro	Phe	Ser	Leu		Ser	Val	Leu		Ser	Hhr	Gly
		275					280					285			

Pro Leu Ala Ser Gly Ala Ala Pro Gly Tyr Ala Pro Pro Pro Phe Leu His 11e Leu Pro Ala His Gln Gln Pro His Ser Gln Leu Leu His His His Leu Pro Gln Asp Ala Gln Ser Gly Ser Gly Gln Arg Ser Gln Pro Ser Ser Leu Gln Pro Lys Ser Gln Ala Ser Lys Pro Ala Tyr Gly Asn Ser Pro Tyr Trp Thr Asn

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<211> 1255

<212> PRT

<213> Homo sapiens

<400> 3821

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Pro	Glu	Val	Thr	Lys	Leu	Met	Asn	Phe	Met	Tyr	Phe	Gln	Arg	Asn	Ala
145					150					155					160
He	Glu	Arg	Phe	Cys	Gly	Glu	Val	Arg	Arg	Leu	Cys	His	Ala	Glu	Arg
				165					170					175	
Arg	Lys	Asp	Phe	Val	Ser	Glu	Ala	Tyr	Leu	Пe	Thr	Leu	Gly	Lys	Phe
			180					185					190		
He	Asn	Met	Phe	Ala	Val	Leu	Asp	Glu	Leu	Lys	Asn	Met	Lys	Cys	Ser
		195					200					205			
Val	Lys	Asn	Asp	His	Ser	Ala	Tyr	Lys	Arg	Ala	Ala	Gln	Phe	Leu	Arg
	210					215					220				
Lys	Met	Ala	Asp	Pro	Gln	Ser	He	Gln	Glu	Ser	Gln	Asn	Leu	Ser	Met
225					230					235					240
Phe	Leu	Ala	Asn	His	Asn	Lys	He	Thr	Gln	Ser	Leu	Gln	Gln	Gln	Leu
				245					250					255	
G]u	Val	He	Ser	Gly	Tyr	Glu	Glu	Leu	Leu	Ala	Asp	He	Val	Asn	Leu
			260					265					270		
Cys	Val	Asp	Tyr	Tyr	Glu	Asn	Arg	Met	Tyr	Leu	Thr	Pro	Ser	Glu	Lys
		275					280					285			
His	Met,	Leu	Leu	Lys	Val	Met	Gly	Phe	Gly	Leu	Tyr	Leu	Met	Asp	Gly
	290					295					300				
Ser	Val	Ser	Asn	He	Tyr	Lys	Leu	Asp	Ala	Lys	Lys	Arg	He	Asn	Leu
305					310					315					320
Ser	Lys	He	Asp		Tyr	Phe	Lys	G1n		Gln	Val	Val	Pro		Phe
				325					330					335	
Gly	Asp	Met		He	Glu	Leu	Ala		Tyr	Пе	Lys	Thr		Ala	His
			340					345					350		
Tyr	Glu		Asn	Lys	Ser	Arg		Thr	Cys	Thr	Ser		Gly	Ser	Ser
		355					360					365			
Pro		Tyr	Asn	He	Cys	Glu	G1n	Met	He	Gln		Arg	G] u	Asp	His
	370					375		_	_		380	_			
	Arg	Phe	He	Ser		Leu	Ala	Arg	Tyr		Asn	Ser	Glu	Val	
385	6.1	C	61		390	0.1		0.1		395			0.1		400
lhr	GIy	Ser	Gly		GIn	Glu	Ala	GIn		Thr	Asp	Ala	Glu		Arg
,		DI.		405			0.1	0.1	410	0.1				415	
Lys	Leu	Phe		Leu	Ala	Leu	GIn		Leu	GIn	Leu	Leu		GIn	Trp
			420					425					430		

Ser	Ala	His	Val	Met	Glu	Val	Tyr	Ser	Trp	Lys	Leu	Val	His	Pro	Thr
		435					440					445			
Asp	Lys	Tyr	Ser	Asn	Lys	Asp	Cys	Pro	Asp	Ser	Ala	Glu	Glu	Tyr	Glu
	450					455					460				
Arg	Ala	Thr	Arg	Tyr	Asn	Tyr	Thr	Ser	Glu	Glu	Lys	Phe	Ala	Leu	Val
465					470					475					480
Glu	Val	He	Ala	Met	He	Lys	Gly	Leu	Gln	Val	Leu	Met	Gly	۸rg	Met
				485					490					495	
Glu	Ser	Val	Phe	Asn	His	Ala	lle	Arg	His	Thr	Val	Tyr	Ala	Ala	Leu
			500					505					510		
Gln	Asp	Phe	Ser	Gln	Val	Thr	Leu	Arg	Glu	Pro	Leu	Arg	Gln	Ala	He
		515					520					525			
Lys	Lys	Lys	Lys	Asn	Val	Пе	Gln	Ser	Val	Leu	Gln	Ala	He	Arg	Lys
	530					535					540				
Thr	Val	Cys	Asp	Trp	Glu	Thr	Gly	His	Glu	Pro	Phe	Asn	Asp	Pro	Ala
545					550					555					560
Leu	Arg	Gly	Glu	Lys	Asp	Pro	Lys	Ser	Gly	Phe	Asp	lle	Lys	Val	Pro
				565					570					575	
Arg	Arg	Ala	Val	Gly	Pro	Ser	Ser	Thr	Gln	Leu	Tyr	Met	Val	Arg	Thr
			580					585					590		
Met	Leu	Glu	Ser	Leu	He	Ala	Asp	Lys	Ser	Gly	Ser	Lys	Lys	Thr	Leu
		595					600					605			
Arg	Ser	Ser	Leu	G] u	G] y	Pro	Thr	He	Leu	Asp	He	Glu	Lys	Phe	His
	610					615					620				
Arg	Glu	Ser	Phe	Phe	Tyr	Thr	His	Leu	He	Asn	Phe	Ser	Glu	Thr	Leu
625					630					635					640
Gln	Gln	Cys	Cys		Leu	Ser	Gln	Leu	Trp	Phe	Arg	Glu	Phe	Phe	Leu
				645					650					655	
Glu	Leu	Thr		Gly	Arg	Arg	He		Phe	Pro	Пе	Glu		Ser	Met
			660					665					670		
Pro	Trp		Leu	Thr	Asp	His		Leu	Glu	Thr	Lys		Ala	Ser	Met
		675					680					685			
Met		Tyr	Val	Leu	Tyr	Ser	Leu	Asp	Leu	Tyr		Asp	Ser	Ala	His
_	690					695					700				
	Ala	Leu	Thr	Arg		Asn	Lys	G]n	Phe		Tyr	Asp	G1u	He	
705					710					715					720

Ala	Glu	Val	Asn	Leu	Cys	Phe	Asp	Gln	Phe	Val	Tyr	Lys	Leu	Ala	Asp
				725					730					735	
Gln	He	Phe	Ala	Tyr	Tyr	Lys	Val	Met	Ala	Gly	Ser	Leu	Leu	Leu	Asp
			740					745					750		
Lys	Arg	Leu	Arg	Ser	Glu	Cys	Lys	Asn	Gln	Gly	Ala	Thr	He	His	Leu
		755					760					765			
Pro	Pro	Ser	Asn	Arg	Tyr	Glu	Thr	Leu	Leu	Lys	Gln	Arg	His	Val	Gln
	770					775					780				•
Leu	Leu	Gly	Arg	Ser	He	Asp	Leu	Asn	Arg	Leu	lle	Thr	Gln	Arg	Val
785					790					795					800
Ser	Ala	Ala	Met	Tyr	Lys	Ser	Leu	Glu	Leu	Ala	He	Gly	Arg	Phe	Glu
				805					810					815	
Ser	Glu	Asp	Leu	Thr	Ser	11e	Val	Glu	Leu	Asp	Gly	Leu	Leu	Glu	lle
			820					825					830		
Asn	Arg	Met	Thr	His	Lys	Leu	Leu	Ser	Arg	Tyr	Leu	Thr	Leu	Asp	Gly
		835					840		,			845			
Phe	Asp	Ala	Met	Phe	Arg	Glu	Ala	Asn	His	Asn	Val	Ser	Ala	Pro	Tyr
	850					855					860				
Gly	Arg	He	Thr	Leu	His	Val	Phe	Trp	Glu	Leu	Asn	Tyr	Asp	Phe	Leu
865					870					875					880
Pro	Asn	Tyr	Cys	Tyr	Asn	Gly	Ser	Thr	Asn	Arg	Phe	Val	Arg	Thr	Val
				885					890					895	
Leu	Pro	Phe	Ser	Gln	Glu	Phe	Gln	Arg	Asp	Lys	Gln	Pro	Asn	Ala	Gln
			900					905					910		
Pro	Gln	Tyr	Leu	His	Gly	Ser	Lys	Ala	Leu	Asn	Leu	Ala	Tyr	Ser	Ser
		915					920					925			
He	Tyr	Gly	Ser	Tyr	Arg	Asn	Phe	Val	Gly	Pro	Pro	His	Phe	Gln	Val
	930					935					940				
He	Cys	Arg	Leu	Leu	Gly	Tyr	Gln	Gly	He	Ala	Val	Val	Met	Glu	Glu
945					950					955					960
Leu	Leu	Lys	Val	Val	Lys	Ser	Leu	Leu	Gln	Gly	Thr	He	Leu	Gln	Tyr
				965					970					975	
Val	Lys	Thr	Leu	Met	Glu	Val	Met	Pro	Lys	He	Cys	Arg	Leu	Pro	Arg
			980					985					990		
His	Glu	Tyr	Gly	Ser	Pro	Gly	lle	Leu	Glu	Phe			His	Gln	Leu
		995					1000					1005			

Lys Asp	lle	Val	Glu	Tyr	Ala	Glu	Leu	Lys	Thr	Val	Arg	Phe	Gln	Asn
1010]	1015				j	1020				
Leu His	Ala	Ala	Pro	Phe	Gln	Asn	Пе	Leu	Pro	Arg	Val	His	Val	Lys
1025]	1030				j	1035					1040
Glu Gly	Glu	Arg	Leu	Asp	Ala	Lys	Met	Lys	Arg	Leu	Glu	Ser	Lys	Tyr
]	045]	1050					1055	
Ala Pro	Leu	His	Leu	Val	Pro	Leu	He	Glu	Arg	Leu	Gly	Thr	Pro	Gln
		1060				-	1065					1070		
Gln Ile	Ala	Ile	Ala	Arg	Glu	Gly	Asp	Leu	Leu	Thr	Lys	Glu	Arg	Leu
	1075					1080					1085			
Cys Cys	Gly	Leu	Ser	Met	Phe	Glu	Val	lle	Leu	Thr	Arg	lle	Arg	Ser
1090					1095					1100				
Phe Leu	Asp	Asp	Pro	He	Trp	Arg	Gly	Pro	Leu	Pro	Ser	Asn	G1 y	Va1
1105		٠		1110					1115					1120
Met His	Va1	Asp	Glu	Cys	Val	Glu	Phe	His	Arg	Leu	Trp	Ser	Ala	Met
			1125					1130					1135	
Gln Phe	Val	Tyr	Cys	He	Pro	Val	Gly	Thr	His	Glu	Phe	Thr	Val	Glu
		1140					1145					1150		
Gln Cys	Phe	Gly	Asp	Gly	Leu	His	Trp	Ala	Gly	Cys	Met	He	He	Va1
	1155					1160					1165			
Leu Leu	Gly	Gln	Gln	Arg	Arg	Phe	Ala	Val	Leu	Asp	Phe	Cys	Tyr	His
1170					1175					1180				
Leu Leu	Lys	Val	Gln	Lys	His	Asp	Gly	Lys	Asp	Glu	He	He	Lys	Asn
1185				1190					1195					1200
Val Pro	Leu	Lys	Lys	Met	Val	Glu	Arg	He	Arg	Lys	Phe	Gln	Пе	Leu
			1205					1210					1215	
Asn Asp	Glu	11e	lle	Thr	He	Leu	Asp	Lys	Tyr	Leu	Lys	Ser	Gly	Asp
		1220					1225					1230		
Gly Glu	Gly	Thr	Pro	Va]	Glu	His	Val	Arg	Cys	Phe	G]n	Pro	Pro	He
	1235					1240					1245			
His Gln	Ser	Leu	Ala	Ser	Ser									
1250	ŧ				1255									

<210> 3822

<211> 166

<212> PRT

<213> Homo sapiens

<400> 3822

Met Gly Pro Leu Trp Tyr Thr Gln Ser lle Thr Asp Arg Asn Met Thr

1 5 10 15

Glu Met Phe Pro Lys His Thr Gly Cys Ser Val Gly Ser Ala Ala Ala 20 25 30

Pro Ala Thr Leu Glu Thr Leu Val Ala Leu Gly Thr Thr Arg Ser His
35 40 45

Ala Arg Pro Pro Leu Cys Gln Glu Ser Gln His Thr Glu Glu Leu Ala 50 55 60

lle Arg His Gln His Gln Ala Pro Ala Leu His Val Gly Leu Ser Asp
65 70 75 80

Pro Asp Val Thr Glu Asn Pro Ser Asp Pro Ala Ser Gly Ala Ala Cys 85 90 95

Thr Cys Phe Leu His Asn Ser Pro Gln Ala Ala Leu Pro Gly Ala Gly
100 105 110

Lys His Cys Pro Ser Gly Val Ala Asn Ser Arg Leu Cys Leu Ser Gln 115 120 125

Asn His Tyr Ser Asp His Pro Asp Ala Asn Pro Arg Tyr lle lle His 130 135 140

Leu Ser Asp Pro Phe Cys Leu His Leu Trp Ser Thr Ala His Gln Val 145 150 155 160

Glu Ser Ser Glu Met Thr

165

<210> 3823

<211> 679

<212> PRT

<213> Homo sapiens

<400> 3823

Met Leu Ser Met Glu Asn Val Gly Asn Tyr Gln Gly Tyr Ser Gln Glu

ì				5					10					15	
Thr	Лlа	Pro	Lys	Asp	His	Leu	Leu	His	Asp	Pro	Glu	Thr	Ser	Ser	Лsp
			20					25					30		
Glu	Asp	Leu	Arg	Ser	Asn	Ser	Glu	Arg	Asp	Leu	Glu	Thr	His	Met	Met
		35					40					45			
His	Leu	Ser	Gly	Asn	Asp	Ser	Gly	Val	Arg	Leu	Gly	Gln	Lys	Gln	Leu
	50					55					60				
Glu	Asn	Ala	Leu	Thr	Val	Arg	Leu	Ser	Lys	Lys	Phe	Glu	Lys	He	Asn
65					70					75					80
Glu	Gly	Arg	Met	Pro	Gly	Thr	Val	His	Ser	Ser	Trp	His	Ser	Val	Lys
				85					90					95	
Gln	Thr	Met	Ser	Leu	Pro	Glu	Lys	Ser	Gln	Ser	Gln	He	Lys	His	GIn
			100					105					110		
Asn	Leu		Ala	Leu	Val	Ser		Asp	His	Cys	Val		Thr	Ser	Gln
		115					120					125			
Glu		Ser	Phe	Leu	Gly		Asn	Lys	Gln	Lys		Leu	Glu	Ala	His
	130					135			_		140	_			
	Lys	Thr	Phe	Arg		Arg	Met	Leu	Trp		Leu	Pro	Cys	Lys	
145	61	C		61	150	DI	,	6	61	155		7.1	C		160
Leu	Glu	Ser	He		116	Phe	Lys	Ser		Glu	Asp	He	Ser		Ser
nı.	C .	11.	DI	165	1	D	C	C	170	C .	DI	3.1	C	175	C 1
Pne	Ser	ms		lyr	Leu	Pro	Ser	Ser	ATa	Ser	Pne	He		GIN	GIY
Aan	Con	Luc	180	C1	Vo.1	Con	Luc	185	Cua	A 12 ~	A 20.00	Can	190	Dha	C1.
ASP	261	195	ASP	Gly	vai	261	200	Ser	Cys	Arg	Arg	205	1111	rne	GIII
G1v	Glu		Lou	Gly	Thr	Thr		Ser	Val	Pro	Val		Aen	Hic	Pro
01 y	210	Lys	Leu	Oly	1111	215	261	261	101	110	220	Leu	лы	1115	110
Gln		Val	Ser	Ser	Pro		Glv	Lys	Glu	G1 v		Glv	Thr	Leu	Arø
225	11.0	.01		001	230	110	01;	Lyo	014	235	0111	Q.L.J		Loa	240
	Gln	Phe	Ser	Asp		Asp	His	Asp	Leu		Glu	Thr	Asp	Ala	
				245					250				•	255	
Asp	G1 v	Ala	Ser		Pro	Leu	Arg	Arg		Thr	Thr	Tvr	Phe		Glv
•	ž		260				J	265	•			-	270		-
Glu	Lys	Leu		Thr	Thr	Ser	Ser	Phe	Ser	He	Leu	Gly		Pro	His
		275					280					285			

Leu	Val	Thr	Ser	Pro	Val	Asp	Gln	Glu	Lys	Gln	Gly	Thr	Leu	Arg	Arg
	290					295					300				
G1u	Phe	Ala	Asp	Thr	Asp	Glu	Asp	Leu	Thr	Glu	Ser	Val	Trp	Thr	Thr
305					310					315					320
Glu	Asp	Gly	Arg	Gln	Thr	Phe	Leu	Pro	Pro	Thr	Tyr	Ser	He	He	Asp
				325					330					335	
Glu	Val	Ser	Gln	Lys	Gln	Thr	Пе	Leu	Ala	Ser	Arg	Cys	Ser	Ala	Glu
			340					345					350		
Leu	Pro	lle	Leu	Gln	Ala	Gly	Val	Gly	Arg	Asp	Ser	Arg	Asp	Lys	Arg
		355					360					365			
Glu	Ser	Ala	Ser	Asn	Asn	Val	Asn	Arg	Leu	Gln	Gly	Ser	Gly	Lys	Thr
	370					375					380				
Phe	Pro	Val	Thr	Asn	Gly	Ser	Lys	Glu	Met	Phe	Lys	Glu	Glu	Glu	He
385					390					395					400
Cys	Thr	Leu	Gln	Ser	Gln	Thr	Arg	Asn	Asn	Leu	Thr	Thr	Ser	Lys	Ser
				405					410					415	
Gly	Ser	Cys	Leu	Val	Thr	Asn	Val	Lys	Arg	Ser	Thr	Ser	His	Glu	Thr
			420					425					430		
Glu	He	Phe	Pro	Pro	Arg	lle	Ser	Va1	Pro	Gln	Thr	Pro	Lys	Ser	Ser
		435					440					445			
Tyr	Leu	Lys	Asn	Gln	Met	Leu	Ser	Gln	Leu	Lys	Leu	Val	Gln	Arg	Lys
	450					455					460				
His	Ser	Gln	Pro	Gln		His	Phe	Thr	Gly		Ser	Leu	Ala	Leu	Asp
465					470					475					480
Asn	Leu	Ser	Ser		Asp	Leu	Leu	Thr		Ala	G1n	Gly	lle	Ser	Asn
				485					490					495	
G]n	Asp	Leu		Thr	Ser	Gln	Val		His	Val	His	Leu		Val	Arg
			500					505					510		
Gly	He		Val	Ala	Gln	GIn		Glu	His	Arg	Val		Thr	His	Val
		515					520		_			525			
Leu		Lys	Cys	GIn	Val		Asn	Phe	Ser	Pro		Ala	Lys	Arg	Val
	530					535	<i>a</i> .				540	~ 1			0.1
	Pro	Leu	Arg	Pro		GI y	Gly	Glu	Leu		GIy	Gly	Asp	Ala	
545	<i>(</i> :)	(F)	c	6.1	550	TI		.1	c	555	Б				560
Leu	61y	Thr	Ser		Leu	Hhir	Arg	Lys		Leu	Pro	Val	His	Asn	Lys
				565					570					575	

Ala Ser Gly Glu Val Pro Gly Ser Lys Ser Ser Pro Thr Leu Lys Thr Gln Pro Pro Ser Glu Asn Leu Phe Arg Lys Trp Met Gln Thr Leu Leu 600 605 Gln Trp Phe Asn Lys Pro Ser lle Met Cys Glu Glu Gln Glu Ser Ser 615 Trp Glu Lys Gly Ser Ser Leu Ser Ser Ser Val Gln Asn Arg Ser Arg 630 635 Val Thr Ser Arg Ala Ala Phe Thr Gly Ala Thr Glu Ala Gln Lys Ile 645 650 Arg Lys Asp Thr Gly Glu Phe Leu Glu Glu Lys Leu Gly His Ser His 660 665 670 Gly He Asp He Thr Cys Pro 675

<210> 3824

<211> 163

<212> PRT

<213> Homo sapiens

100

<400> 3824

Met Thr Thr Lys Thr Met Ser Gln Tyr Cys Gln Gln Leu Asn Gly Leu . 1 10 Lys Ala Glu Asn Thr Arg Leu Asn Ser Lys Leu Glu Lys Glu Glu His 25 His Thr Asp Gly Leu Glu Ala Glu Val Glu Phe Phe His Ser Arg Leu 40 45 Ala Ala Ala Ile Asn Glu His Asn Glu Ser Leu Glu Thr Lys Asp Leu 50 55 60 Glu Leu Val Leu Gln Arg Ala His Asn Phe Ser Val His Lys Lys Ile 70 75 Ser Ser Thr Val Ser Gln Leu Lys Asp Lys Asn Glu Leu Leu Thr Glu 85 90 Gln Phe Ser Lys Ala Gln Met Lys Phe Asn Thr Leu Lys Gly Lys Leu

105

<210> 3825

<211> 152

<212> PRT

<213> Homo sapiens

<400> 3825

Met Gln Ala Pro Phe Gly Ala Arg Asn Ala Arg Glu Ile Cys Leu Thr
1 5 10 15

Lys Arg Glu Pro Gly Gly Asn Ile Gln Asp Asn Gly Lys Lys Ala Ser 20 25 30

Lys Ile Phe Gln Lys Ser Leu Gly Gln Pro Phe Pro Ser Gln Ala Gln
35 40 45

Arg Pro Lys Ser Lys Glu Trp Phe Gln Gly Pro Gly Leu Glu His His
50 55 60

Cys Pro Val Gln Pro Trp Asp Ala Ala Pro Cys lle Gln Thr Ala Thr 65 70 75 80

Ala Pro Ala Leu Ala Gln Arg Ala Ser Asp Thr Ala Trp Ala Thr Ala 85 90 95

Ser Lys Gly Ala Ser Cys Lys Pro Trp Trp Phe Pro Cys Gly Val Lys 100 105 110

Pro Lys Gly Ala Gln Asn Glu Ser Met Lys Glu Ala Trp Gln Leu Pro 115 120 125

Pro Arg Phe Gln Arg Leu Tyr Arg Lys Thr Cys Leu Leu Arg Gln Lys 130 135 140

Pro Ala Ala Gly Val Val Pro Leu

145 150

<210> 3826

<211> 118

<212> PRT

<213> Homo sapiens

<400> 3826

Met Asp Met Asp Phe Pro Asn Thr His Ala Gln Ser Gln Val Ser Pro 1 5 10 15

Arg Gln Pro Met Arg Met Ala Leu Gly Ser Leu Asp Phe Ser Ser Asp 20 25 30

Gly Arg Ala Leu Asn Pro Lys Val Leu Val Gly Gln Val Gly Gly Phe 35 40 45

Leu Val Arg Thr Arg Gly Gly Thr Ser Thr Gly Met Gly Asp Ala Gly 50 55 60

Ser Arg Cys Pro Ser Asp Ala Val Val Arg Thr Leu Leu Thr Gln Leu 65 70 75 80

Gln Arg Ala Arg Gly Thr Leu Ala His Asp Ala Pro Val Met Pro 85 90 95

Trp Leu Gly Arg Arg Ser Arg Ser Cys Ser Ala Glu His Gly Gly Arg
100 105 110

Trp Leu Thr Met Pro Gln
115

<210> 3827

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3827

Met Asp Gly Val Asp Ala Arg Val Ser Arg Arg Arg Gly Trp His Pro

1 5 10 15

His Glu Ala Ser His Thr Pro Met Gly Val Gly Ile Trp Arg His Ala

25 Trp Gly Gly Asp Ala Leu Trp Arg His Lys Ala Gly Ala Ser Arg Ala 40 Pro Arg Ser Trp Thr Gly Pro Gln Gly Val Leu Gln Leu Lys Arg Glu 50 55 60 Gly Lys Lys Ala His Glu Pro Val Ala Ser Gly Ala Asp Phe Pro Thr 70 75 Gln Gly Leu Ser Leu Cys Pro Trp Gly Pro Arg Asn Phe Pro Gly Asn 90 85 Leu His Leu Ala Gln Ile Tyr Pro Leu Ser Pro Pro Thr Leu Ala Val 100 105 Ala Ser Gln Glu Ala Pro Ala Thr Val Leu Lys Thr Lys Phe Ser Ser 115 120 125 Val 11e Pro Leu Cys Ser Ala Cys Val 11e His Glu Thr Gly Lys Ser 130 135 140 Pro Gly Leu Gln Arg Lys Lys 150

<210> 3828

<211> 131

<212> PRT

<213> Homo sapiens

<400> 3828

Met Ala Thr Ala Ser Ala Phe Ser Val Arg Glu Pro Arg Ala Gln Pro 1 5 10 15

Asn Pro Ala Gly Gly Asn Ser Trp Val Pro Phe Pro Tyr Phe Arg Ser 20 25 30

Leu Gly Cys Ala Val Val Thr Ser Glu Pro Gly Cys Val Leu Thr Ser 35 40 45

Asp Lys Cys Leu Ser Leu Gly His Glu Arg Gly Val Gly Ser Ala Val 50 55 60

Gln Phe Gln Gly Gly Phe Trp Leu He Thr Phe Ser Trp Val Phe Ala 65 70 75 80

Glu Ser Gly Gly Asn Leu Cys Pro Pro Glu Thr Arg Asp Gln Gly Arg

Ser Tyr Gly Arg Gly Asp Ala Ala Arg Ala Val Ala Ser Ser Ala Ser Ser Val Arg Val Arg Ser Arg Leu Ala Pro Gly Pro Pro Gly Ala Gln Gly Leu Glu <210> 3829 <211> 232 <212> PRT <213> Homo sapiens <400> 3829 Met Ala Asn Tyr Tyr Glu Val Leu Gly Val Gln Ala Ser Ala Ser Pro Glu Asp Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Arg Trp His Pro Asp Lys Asn Pro Asp Asn Lys Glu Glu Ala Glu Lys Lys Phe Lys Leu Val Ser Glu Ala Tyr Glu Val Leu Ser Asp Ser Lys Lys Arg Ser Leu Tyr Asp Arg Ala Gly Cys Asp Ser Trp Arg Ala Gly Gly Ala Ser Thr Pro Tyr His Ser Pro Phe Asp Thr Gly Tyr Thr Phe Arg Asn Pro Glu Asp Ile Phe Arg Glu Phe Phe Gly Gly Leu Asp Pro Phe Ser Phe Glu Phe Trp Asp Ser Pro Phe Asn Ser Asp Arg Gly Gly Arg Gly His Gly Leu Arg Gly Ala Phe Ser Ala Gly Phe Gly Glu Phe Pro Ala Phe Met Glu Ala Phe Ser Ser Phe Asn Met Leu Gly Cys Ser Gly Gly Ser

His Thr Thr Phe Ser Ser Thr Ser Phe Gly Gly Ser Ser Ser Gly Ser

<210> 3830

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3830

Met Ser Ile His Arg Ile Cys Arg His Pro Ser Lys Glu Ser Cys Thr
1 5 10 15

Ala Tyr Ser Thr Asp Ile Leu Thr Lys Ala Ser Pro Ser Cys Leu Gly
20 25 30

Gly Val Gly Leu Phe Pro Tyr lle Leu Ser Ser Leu Glu Thr Arg Gln
35 40 45

Val Asn Gln Leu Gly Val Lys Trp Pro Ser Ala Met Ser Ser Pro Gly 50 55 60

Glu Ser 11e Pro Leu Leu Pro Leu Phe Pro Cys Asn Trp Asn Trp Thr
65 70 75 80

Thr Trp Cys Pro Arg Leu Ser Gly Val Lys Leu Pro Leu Gly Val Ser 85 90 95

Cys Ser Ser Val Thr Phe lle Phe Ala Phe Leu Met Ser Pro Leu Ala 100 105 110

Val Leu He Leu Leu Gln

<211> 254

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<212> PRT
<213> Homo sapiens
<400> 3831
Met Gly Glu Asp Phe Met Thr Lys Thr Pro Lys Ala Met Ala Thr Lys
Ala Lys lle Asp Lys Trp His Leu lle Lys Leu Lys Ser Phe Cys Thr
             20
                                 25
                                                      30
Ala Lys Glu Thr Thr Ile Arg Met Asn Arg Gln Pro Thr Glu Trp Glu
                             40
Lys lle Phe Ala lle Tyr Pro Ser Asp Lys Gly Leu lle Ser Arg lle
                         55
                                             60
Cys Lys Glu Leu Lys Gln 11e Tyr Lys 11e Lys Ser Asn Asn Ser 11e
                     70
                                         75
65
Asn Lys Trp Ala Lys Asp Met Asn Arg His Phe Ser Lys Glu Asp Ile
                                     90
Tyr Ala Ala Lys Arg His Met Lys Glu Cys Ser Ser Ser Leu Ala lle
            100
                                105
                                                     110
Arg Glu Met Gln Ile Lys Thr Thr Val Arg Tyr Tyr Leu Thr Pro Val
                            120
                                                 125
        115
Arg Met Ala lle lle Lys Lys Ser Gly Asn Asn Arg Cys Trp Lys Gly
                        135
                                            140
Tyr Gly Glu Ile Gly Thr Leu Leu His Cys Trp Trp Asp Cys Lys Leu
145
                    150
                                         155
Val Gln Pro Leu Trp Lys Thr Val Trp Arg Phe Leu Lys Asp Leu Glu
                165
                                    170
Leu Glu Ile Pro Phe Asp Pro Ala Ile Pro Leu Leu Gly Ile Tyr Pro
                                                     190
            180
                                185
Lys Asp Tyr Lys Ser Cys Cys Tyr Lys Asp Thr Cys Thr Arg Lys Phe
                                                 205
        195
                            200
Ile Leu Ala Leu Leu Thr Ile Ala Lys Thr Trp Asn Gln Pro Lys Cys
                        215
Pro Ser Met Ile Asp Trp Ile Lys Lys Met Trp His Met Tyr Thr Ile
225
                                         235
                                                             240
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Glu Tyr Tyr Ala Ala IIe Lys Arg Met Ser Ser Cys Pro Leu

245 250

<210> 3832 <211> 1014 <212> PRT <213> Homo sapiens <400> 3832 Met Pro Asn Pro Pro Leu Tyr Tyr Gln Pro Gly Asn Asp Gln Pro Val 5 10 Ser Phe Asn Leu Lys Asn Thr Ser Gln Val Ser Leu His Arg Ser Glu 25 Thr lle Ser Leu Gln Thr Trp Cys Ser Cys Val Ala Gly Gln Pro lle 35 Gln Thr Phe Trp Val Ser Glu Trp Ser Thr Met Asn Pro Glu Gln Arg 55 His His Cys Gln Gln Thr Pro Asn Pro Met Ala Leu Ala Leu Pro Ser 65 70 75 80 Pro Ala Leu Lys Ala Leu Ser Gly Pro His Pro Gln Ser Gly Gly Gln 85 90 Asp Asn Asp Ser Gly Ser Asp Leu Gln Gln Lys Tyr Ser Gln Leu Phe 105 Cys Gly Leu Pro Ser Leu His Ser Glu Ser Leu Val Ala Thr Phe Met 115 120 125 Gly Ser Gln Gly Leu Pro Lys Ile Glu Asn Val Pro Lys Pro Pro Leu 135 140 Lys Asp Pro Phe Leu Phe Asn Glu Leu Ser Phe Pro Gln Leu Leu Pro 150 155 145 160 Lys Thr Ser Pro Gln Ser Ala Pro Pro Ser Ser Pro Leu Ser Pro Asn 170 165 Trp Val Ser Pro Ser Asp His Gln Arg Ala Gln lle Asn Val Pro Phe 185 190 Leu Thr Leu Ala Glu Tyr Glu Ala Leu Glu Trp His Leu Leu Gln Arg

200

Gln Leu Gln Leu Gln Trp Gly Trp Pro Ala Ala Leu Gln Arg Ser Gln

205

	210					215					220				
His	Thr	Gln	Cys	Leu	Met	Gln	His	Glu	Pro	Cys	Gly	Lys	Ala	Gln	Ser
225					230					235					240
Pro	Glu	Thr	Thr	Thr	Ala	Ser	Gln	Thr	Gly	Lys	Ser	He	Ser	Val	Leu
				245					250					255	
Thr	Arg	Glu	Leu	Leu	Phe	Phe	Pro	Glu	His	Ala	Arg	Lys	Leu	Leu	Glu
			260					265					270		
Phe	His	11e	Gln	Lys	Gln	Ser	11e	His	His	Arg	Trp	Gly	Leu	Pro	Gln
		275					280					285			
Lys	Πe	Gln	Gln	Ser	He	Gln	Leu	Leu	Leu	Thr	Ser	Thr	Asp	Gln	Gln
	290					295					300				
Thr	Val	Ser	Ser	Ser	Ser	Thr	Ala	Leu	Ala	Asn	Val.	Ser	He	Pro	Gln
305					310					315					320
Pro	Val	Ala	Leu	Glu	Ala	Asn	Gly	Ala	Cys	Asp	Val	Leu	Ser	Pro	11e
				325					330					335	
Ala	Ala	Pro	Val	Ser	Ile	Pro	Arg	Pro	His	Leu	Leu	Thr	Gln	Val	Lys
			340					345					350		
Ala	He	Leu,	Gln	Ser	His	Ile	Asp	Ser	Lys	Cys	Gly	Gln	He	His	Gln
		355					360					365			
Gly	Lys	He	Pro	Ala	Cys	Val	His	Arg	Ser	Trp	Asp	Cys	Arg	He	Ser
	370					375					380				
Gly	Val	Leu	Ala	Val	Ala	Pro	Phe	Pro	Cys	He	Pro	Glu	Ser	Gln	Phe
385					390					395					400
Leu	G]u	Leu	Gln		Ala	Ser	Asp	Pro		Leu	His	His	Lys		Met
				405					410					415	
Pro	Trp	Met			Ala	Leu	Asp			Gln	GIn	Ala			Gly
m)		m.	420		•			425					430		
lhr	Val		61u	His	Pro	Lys	Leu	Leu	Arg	Val	Leu		Val	Glu	Ala
	61	435	,	63	T)	m)	440		11.		,,,	445	4.7	DI	,
116		Lys	i.eu	GJU	ınr		Leu	Arg	HIS	Lys		Leu	Ala	Pne	Leu
C	450	1	D	A 1 .	1	455 T	т	V - 1	A 1 -	1	460	Λ	A 1 =	1	A 1 .
	біў	Leu	Pro	Ala		iyr	Tyr	vai	ATA		Pro	Arg	Ата	Leu	
465	A 1 =	Vel	Tlans	Car-	470	Car	Ve. 1	11.	Tl	475	Most	Ve 1	Dass	Ç	480
1.1.0	MIS	val	1111	ser 485	UED	ser	Va]	116	1nr 490	OIU	Me t	167	1.10	ser 495	1.1.0
Val	Glu	He	Pro		C.Le	Pro	Lou	110		Mot	Va1	Sor	Pho		Glu

			500					505					510		
Gln	Cys	Пе	Ser	Leu	Gly	Pro	Cys	Pro	Gln	Gly	Asn	Asn	Glu	Ser	Cys
		515					520					525			
Thr	Asp	Val	Ala	Lys	Glu	Phe	Gln	Pro	Ala	Val	Pro	Val	Lys	Gly	Thr
	530					535					540				
Met	Glu	Thr	Leu	Pro	Leu	Glu	Ser	Gln	Thr	His	Pro	Thr	Ser	Pro	His
545					550					555					560
Ser	Leu	Gln	Thr	His	Ile	Leu	Thr	Lys	Leu	Asn	Phe	His	Leu	Arg	Lys
				565					570					575	
Lys	Val	Leu	Glu	lle	Gln	Trp	G1 y	Пe	Pro	Пе	Arg	Ala	Arg	Lys	Ser
			580					585					590		
Arg	Glu	Gln	Thr	Val	Ala	Ala	Pro	Glu	Asn	Пе	Ser	Thr	Gln	Lys	Ser
		595					600					605			
Leu	Glu	Ser	Leu	Asn	His	Gln	Gly	Glu	Thr	Leu	Leu	Gln	Glu	Leu	Pro
	610					615					620				
He	Pro	Pro	Asp	Thr	Leu	Pro	Ala	Pro	Asn	Pro	Glu	Gly	Val	His	Leu
625					630					635					640
Lys	Glu	Gln	Leu	Ala	Asn	Asp	Leu	Lys	Ala	Val	Gln	Gln	Asn	Gln	Lys
				645					650					655	
Gln	Ser	Asn	Ser	Lys	Ala	Va1	Pro	G1n	Gly	Ser	Ala	His	Ser	Val	Ser
			660					665					670		
Lys	He	Ser	Gln	Pro	He	Gly	Asp	Met	Thr	Glu	Ala	His	Met	Pro	Cys
		675					680					685			
Val		Val	Glu	Ala	Asn		Asn	Lys	Pro	Ser		Glu	Glu	Pro	Cys
	690					695					700				
	Pro	Glu	Pro	Gln		Pro	Ser	Lys	Ser		Asp	Pro	Ala	His	
705					710					715	0.1				720
Pro	Met	Leu	Ala		Asn	Arg	Glu	Asp		Glu	Glu	Thr	Lys		
		T		725	0.1		. 1	61	730	6.1		C	C	735	
Arg	Asp	lyr		Glu	61y	Asp	Ala		Phe	біу	Arg	Ser		Ihr	Arg
<i>C</i> 1	C1	A	740	D	A 1 =	C1	Δ	745	A	D	A 1	C1	750	I	D
61u	61u		лrg	rro	Ala	GIU	Asp	uin	Arg	rro	дта	765	мет	Leu	rro
100	1	755	Dma	A 33.00	C1	S	760	A ~	Т	San	ніс		Dlsc	Ша	Low
ASII	770	1111	110	A1 g	ory	3er 37e	Trp	vi 8	11 b	261	700	261	1 116	BIS	Leu

Ala Asp Pro Cys Gln His Ser Pro Gln His His Pro Gln Leu Lys Leu Pro Gln Leu Pro Pro Arg Val Pro Gly Glu Lys Glu Ser Glu Lys Asp Leu Gln Asp Ser Gln Thr Lys Leu Thr Val lle Leu Glu Pro Ala Thr lle Pro Glu Asn Ala Gln Thr Val Leu Pro Gln Ser Ser Gln Gly Gln Pro Phe Leu Ser Gln Pro Thr Gln Ala Lys Pro Leu Gln Gly Gln Thr Leu Gln Gly Gln Val Leu His Gly Leu Val Met Pro Val His Ala Gln Lys Lys Pro Ser Leu Thr Glu Ser Ser Phe Arg Asn Lys Ile Lys Cys Phe Leu Gln His Ile Asn Pro Lys Thr Lys Gly Lys Gly His Glu Asp Ser Met Phe Ser Ala Ala Ala Lys Val Ala Lys Thr Arg Lys Glu Asn Val Ala Lys Ser Leu Ala Pro Ala Lys Ser Pro Val Gly Arg Ser Lys Thr Glu Lys Pro Thr Gly Cys Ser Lys Ala Gln Ser Arg Pro Ala Gln Lys Leu Val Gly Pro Ala Phe Leu Asp Gly Pro Gln Ser Leu Asp Asp Lys Leu Arg Leu His Ser Arg Gln Pro Gly Ser Ala Ser Ala Leu Gly Tyr Pro Arg His Cys Pro Arg His Cys Pro Arg Glu Ala Cys Ala Asn Lys Pro Gly His Pro Thr

<210> 3833

<211> 161

<212> PRT

<213> Homo sapiens

<400> 3833 Met Ala Ala Trp Thr Ala Ser His Trp Pro Val Lys Gly 11e Leu Lys 5 10 15 Asn Lys Thr Ser Thr Ala Ser Ser Met Val Ala Ser Ala Glu Gln Pro 25 20 Ser Gly Ser Val Glu Glu Glu Leu Ser Lys Lys Ser Gln Lys Trp Glu 40 45 Glu Met Asn Ile Leu Ala Thr Tyr His Pro Ala Asp Lys Asp Tyr Gly 50 55 Leu Met Lys 11e Val Glu Pro Ser Thr Pro Ser Cys Arg Lys Met Gly 70 75 Asp Gly Glu Asp Ala Cys Ser Gly 11e Glu Thr Thr Glu Ala Val Ala 85 90 Pro Asp Ile Leu Ala Lys Lys Leu Ala Val Ala Glu Gly Ser Asn Pro 100 105 110 Lys Tyr Arg Val Gln Glu Gln Glu Ser Ser Gly Glu Glu Ala Ser Asp 120 125

Leu Ser Pro Glu Glu Arg Glu Lys Arg Arg Gln Phe Gln Met Lys Arg
130

Lys Leu His Tyr Asn Glu Gly Leu Asn He Lys Leu Ala Arg Glu Leu
145

150

160

<210> 3834

He

<211> 275

<212> PRT

<213> Homo sapiens

<400> 3834

Met Leu Val Ala Gln Gln Ala Tyr Ser Thr Leu Val Pro Met Pro Leu 1 5 10 15 Leu Val Ser Ser Ile Ser Glu Ile Gln Asn Gln Val Leu Glu Glu Ile 20 25 30 .

Gln	Asn	Leu	Asn	Cys	Val	Lys	Glu	Asn	Ser	Ala	Thr	Phe	He	Glu	Arg
		35					40					45			
Lys	Leu	Ser	Phe	Glu	Lys	Lys	Lys	Pro	Val	Gln	11e	Leu	Pro	Glu	Met
	50					55					60				
Pro	His	61n	Thr	Asp	lle	His	Arg	Ser	Lys	Leu	Leu	Ser	Thr	Tyr	Ser
65					70					75					80
Ala	Glu	Glu	Leu	Tyr	Gln	Ala	Lys	Arg	Lys	Cys	Asn	Ala	Thr	Gln	Glu
				85					90					95	
Tyr	Asp	He	Asn	Leu	Leu	Glu	Gly	Asp	Leu	Val	Ala	Val	lle	Glu	Gln
			100					105					110		
Lys	Asp	Pro	Leu	Gly	Ser	Thr	Ser	Arg	Trp	Leu	Val	Asp	Thr	Gly	Asn
		115					120					125			
Val	Lys	Gly	Tyr	Val	Tyr	Ser	Ser	Phe	Leu	Lys	Pro	Tyr	Asn	Pro	Ala
	130					135					140				
Lys	Met	Gln	Lys	Val	Asp	Ala	Glu	Asn	Arg	Phe	Cys	Asp	Asp	Asp	Phe
145					150					155					160
Glu	Asn	He	Ser	Leu	Phe	Val	Ser	Ser	Arg	Pro	Ala	Ser	Asp	Ser	Val
				165					170					175	
Thr	Gly	Thr	Ser	Glu	Ser	Ser	He	Gly	Asp	Ser	Ser	Ser	Ser	Leu	Ser
			180					185					190		
Gly	Thr	Cys	Gly	Lys	Phe	Glu	Thr	Asn	Gly	Thr	Asp	Val	Asp	Ser	Phe
		195					200					205			
Gln	Glu	Val	Asp	Glu	Gln	11e	Phe	Tyr	Ala	Val	His	Ala	Phe	Gln	Ala
	210					215					220				
Arg	Ser	Asp	His	Glu	Leu	Ser	Leu	GIn	Glu	Tyr	Gln	Arg	Val	His	He
225					230					235					240
Leu	Arg	Phe	Cys	Asp	Leu	Ser	Gly	Asn	Lys	Glu	Trp	Trp	Leu	Ala	G]u
				245					250					255	
Ala	Gln	Gly	Gln	Lys	G1y	Tyr	Va]	Pro	Ala	Asn	Tyr	Leu	Gly	Lys	Met
			260					265					270		
Thr	Tyr	Ala													
		275													

<210> 3835

<211> 1551

<212> PRT <213> Homo sapiens <400> 3835 Met Ser Pro 11e Gly Asp Ala Phe Arg Asn Arg Leu Arg Met Phe Pro Ser Leu lle Asn Cys Cys Thr Ile Asp Trp Phe Gln Ser Trp Pro Thr Asp Ala Leu Glu Leu Val Ala Asn Lys Phe Leu Glu Asp Val Glu Leu Asp Asp Asn Ile Arg Val Glu Val Val Ser Met Cys Lys Tyr Phe Gln Glu Ser Val Lys Lys Leu Ser Leu Asp Tyr Tyr Asn Lys Leu Arg Arg His Asn Tyr Val Thr Pro Thr Ser Tyr Leu Glu Leu 11e Leu Thr Phe Lys Thr Leu Leu Asn Ser Lys Arg Gln Glu Val Ala Met Met Arg Asp Arg Tyr Leu Thr Gly Leu Gln Lys Leu Asp Phe Ala Ala Ser Gln Val Ala Val Met Gln Arg Glu Leu Thr Ala Leu Gln Pro Gln Leu Ile Leu Thr Ser Glu Glu Thr Ala Lys Met Wet Val Lys 11e Glu Ala Glu Thr Arg Glu Ala Asp Gly Lys Lys Leu Leu Val Gln Ala Asp Glu Lys Glu Ala Asn Val Ala Ala Ala Ile Ala Gln Gly lle Lys Asn Glu Cys Glu Gly Asp Leu Ala Glu Ala Met Pro Ala Leu Glu Ala Ala Leu Ala Ala Leu Asp Thr Leu Asn Pro Ala Asp Ile Ser Leu Val Lys Ser Met Gln Asn Pro Pro Gly Pro Val Lys Leu Val Met Glu Ser Ile Cys Ile Met

Lys Gly Met Lys Pro Glu Arg Lys Pro Asp Pro Ser Gly Ser Gly Lys

				245					250					255	
Met	Пe	Glu	Asp	Tyr	Trp	Gly	Val	Ser	Lys	Lys	Пе	Leu	G1 y	Asp	Leu
			260					265					270		
Lys	Phe	Leu	Glu	Ser	Leu	Lys	Thr	Tyr	Asp	Lys	Asp	Asn	He	Pro	Pro
		275					280					285			
Leu	Thr	Met	Lys	Arg	lle	Arg	Glu	Arg	Phe	He	Asn	His	Pro	Glu	Phe
	290					295					300				
Gln	Pro	Ala	Val	lle	Lys	Asn	Val	Ser	Ser	Ala	Cys	Glu	Gly	Leu	Cys
305					310					315					320
Lys	Trp	Val	Arg	Ala	Met	Glu	Val	Tyr	Asp	Arg	Val	Ala	Lys	Val	Val
				325					330					335	
Ala	Pro	Lys	Arg	G]u	Arg	Leu	Arg	Glu	Ala	Glu	Gly	Lys	Leu	Ala	Ala
			340					345					350		
Gln	Met	Gln	Lys	Leu	Asn	G1n		Arg	Ala	Glu	Leu	Lys	Leu	Val	Val
		355					360		•			365			
Asp		Leu	Gln	Ala	Leu		Asp	Asp	Phe	G] u		Met	Asn	Thr	Lys
	370					375					380				
	Lys	Asp	Leu	Glu		Asn	He	Glu	He		Ser	Gln	Lys	Leu	
385					390					395					400
Arg	Ala	Glu	Lys		He	Ser	Gly	Leu		Gly	Glu	Lys	Asp		Trp
TC1	0.1			405	6.1	,	6.1		410	m	m)			415	0.7
Ihr	GIU	Ala		Arg	61n	Leu	61y		Arg	lyr	Ihr	Asn		Ihr	Gly
A	V . 1	1	420	C	C .	C.1	TI	425	4.1	T.	,	C1	430	וטו	Ti
Asp	vaj		Leu	ser	ser	GIV		vai	Ala	lyr	Leu	Gly	Ala	Phe	Inr
Vo.1	lan	435	Ana	Va1	Cln	Cva	440	Aon	Cln	T.222	Lou	445	Clu	Cua	Luc
val	450					455	GIH	ASII	6111	пр	460	Ala	Glu	Cys	Lys
Aen							Sor	Acn	Pho	Sor		Ser	Hic	The	Lou
465	Lyo	101	116	110	470	THE	561	nsp	1110	475	Leu	261	111.5	1111	480
	Asn	Pro	Tle	Lvs		Aro	Ala	Trn	G1n		Ala	Gly	Len	Pro	
Oly	.10,7	110	7.10	485	.110	8	,1,1	ΠÞ	490	,, 1 C	,,,,,	Oly	DC G	495	101
Asp	Ser	Phe	Ser		Asn	Asn	Glv	He		Val	Ser	Asn	Ser		Arø
[.			500					505					510	8	6
Trp	Ala	Leu		He	Asp	Pro	His		G1n	Ala	Asn	Lys		He	Lvs
•		515			- 1-	-	520	•	: - 1			525	1-		
Asn	Me1		Lvs	Ala	Asn	Lvs		Ala	Val	He	Lvs	Phe	Ser	Asn	Ser

	530					535					540				
Asn	Tyr	Met	Arg	Met	Leu	Glu	Asn	Ala	Leu	Gln	Leu	Gly	Thr	Pro	Val
545					550					555					560
Leu	He	Glu	Asn]]e	Gly	Glu	Glu	Leu	Asp	Ala	Ser	He	Glu	Pro	He
				565					570					575	
Leu	Leu	Lys	Ala	Thr	Phe	Lys	G1n	Gln	Gly	Val	Glu	Tyr	Met	Arg	Leu
			580					585					590		
Gly	Glu	Asn	He	He	Glu	Tyr	Ser	Arg	Asp	Phe	Lys	Leu	Tyr	He	Thr
		595					600					605			
Thr	Arg	Leu	Arg	Asn	Pro	His	Tyr	Leu	Pro	Glu	Val	Λla	Val	Lys	Val
	610					615					620				
Cys	Leu	Leu	Asn	Phe	Met	Пe	Thr	Pro	Leu	G1 y	Leu	Gln	Asp	Gln	Leu
625					630					635					640
Leu	Gly	Пе	Val	Ala	Ala	Lys	Glu	Lys	Pro	Glu	Leu	Glu	Glu	Lys	Lys
				645					650					655	
Asn	Gln	Leu	He	Val	Glu	Ser	Ala	Lys	Asn	Lys	Lys	His	Leu	Lys	Glu
			660					665					670		
lle	Glu	Asp	Lys	He	Leu	Glu	Val	Leu	Ser	Met	Ser	Lys	Gly	Asn	lle
		675					680					685			
Leu	Glu	Asp	Glu	Thr	Ala	11e	Lys	Val	Leu	Ser	Ser	Ser	Lys	Val	Leu
	690					695					700				
Ser	Glu	Glu	11e	Ser	Glu	Lys	Gln	Lys	Val	Ala	Ser	Met	Thr	Glu	Thr
705					710					715					720
Gln	He	Asp	Glu	Thr	Arg	Met	G1 y	Tyr	Lys	Pro	Val	Ala	Val	His	Ser
				725					730					735	
Ala	Thr	He	Phe	Phe	Cys	Пе	Ser	Asp	Leu	Ala	Asn	Пе	Glu	Pro	Met
			740					745					750	•	
Tyr	Gln	Tyr	Ser	Leu	Thr	Trp	Phe	He	Asn	Leu	Tyr	Met	His	Ser	Leu
		755					760					765			
Thr	His	Ser	Thr	Lys	Ser	Glu	Glu	Leu	Asn	Leu	Arg	He	Lys	Tyr	He
	770					775					780				
He	Asp	His	Phe	Thr	Leu	Ser	He	Tyr	Asn	Asn	Val	Cys	Arg	Ser	Leu
785					790					795					800
Phe	Glu	Lys	Asp	Lys	Leu	Leu	Phe	Ser	Leu	Leu	Leu	Thr	He	Gly	He
				805					810					815	
Met	Lys	Gln	Lys	Lys	Glu	He	Thr	GIu	Glu	Val	Trp	Tyr	Phe	Leu	Leu

			820					825					830		
Thr	Gly	Gly	He	Ala	Leu	Asp	Asn	Pro	Tyr	Pro	Asn	Pro	Ala	Pro	Gln
		835					840					845			
Trp	Leu	Ser	Glu	Lys	Ala	Trp	Ala	G]u	Пе	Val	Arg	Ala	Ser	Ala	Leu
	850					855					860				
Pro	Lys	Leu	His	G1y	Leu	Met	Glu	His	Leu	Glu	G1n	Asn	Leu	Gly	Glu
865					870					875					880
Trp	Lys	Leu	11e	Tyr	Asp	Ser	Ala	Trp	Pro	His	Glu	Glu	Gln	Leu	Pro
				885					890					895	
Gly	Ser	Trp	Lys	Phe	Ser	Gln	Gly	Leu	Glu	Lys	Met	Val	Ile	Leu	Arg
			900					905					910		
Cys	Leu	Arg	Pro	Asp	Lys	Met	Val	Pro	Ala	Va]	Arg	Glu	Phe	He	Ala
		915					920					925			
Glu	His	Met	Gly	Lys	Leu	Tyr	Пе	Glu	Ala	Pro	Thr	Phe	Asp	Leu	Gln
	930					935					940				
Gly	Ser	Tyr	Asn	Asp	Ser	Ser	Cys	Cys	Ala	Pro	Leu	He	Phe	Val	Leu
945					950					955					960
Ser	Pro	Ser	Ala	Asp	Pro	Met	Ala	Gly	Leu	Leu	Lys	Phe	Ala	Asp	Asp
				965					970					975	
Leu	Gly	Met	Gly	Gly	Thr	Arg	Thr	Gln	Thr	Пе	Phe	Leu	Gly	Gln	Gly
			980					985					990		
Gln	Gly	Pro	He	Ala	Ala	Lys	Met	Пе	·Asn	Asn	Ala	He	Lys	Asp	Gly
		995					1000				-	1005			
Thr	Trp	Val	Val	Leu	Gln	Asn	Cys	His	Leu	Ala	Ala	Ser	Trp	Met	Pro
	1010					1015					1020				
Thr	Leu	Glu	Lys	He	Cys	Glu	Glu	Va]	11e	Val	Pro	Glu	Ser	Thr	Asn
1029															1040
Ala	Arg	Phe	Arg	Leu	Trp	Leu	Thr	Ser	Tyr	Pro	Ser	Glu	Lys	Phe	Pro
				1045					1050					1055	
Val	Ser.	He	Leu	Gln	Asn	Gly	He	Lys	Met	Thr	Asn	Glu	Pro	Pro	Lys
			1060					1065					1070		
Gly			Ala	Asn	Leu	Leu		Ser	Tyr	Leu			Pro	11e	Ser
		1075					1080					1085	_		
		Val	Phe	Phe		Ser	Cys	Ala	Lys			Met	Trp	Gln	Lys
	1090	DI	6.1	,		1095	131	11.			1100	C.1	C.		Ara
330	1 011	Pho	1 - 1 37	1 011	1 1/0	1/hc	いわい	14.1 C	$\alpha \rightarrow \alpha$	ALC: 1	V O I	1.10	1.111	A 17 CT	II TO CT

1105			1	1110		•		1	115				l	120
Asn Phe	Gly	Pro	Leu	Gly	Trp	Asn	He	Pro	Tyr	Glu	Phe	Asn	Glu	Ser
		1	125]	130				1	135	
Asp Leu	Arg	Thr	Ser	Met	Trp	Gln	Пе	Gln	Met	Phe	Leu	Asn	Asp	Tyr
	1	1140				J	145]	1150		
Lys Glu	Val	Pro	Phe	Asp	Ala	Leu	Thr	Tyr	Leu	Thr	Gly	Glu	Cys	Asn
	1155				1	160]	165			
Tyr Gly	Gly	Arg	Val	Thr	Asp	Asp	Lys	Asp	Arg	Arg	Leu	Leu	Leu	Ser
1170				1	175					1180				
Leu Leu	Ser	Met	Phe	Tyr	Cys	Lys	G]u	He	Glu	Glu	Asp	Tyr	Tyr	Ser
1185]	1190]	195				l	200
Leu Ala	Pro	Gly	Asp	Thr	Tyr	Tyr	He	Pro	Pro	His	Gly	Ser	Tyr	Gln
]	1205				j	210				l	215	
Ser Tyr	He	Asp	Tyr	Leu	Arg	Asn	Leu	Pro	He	Thr	Ala	His	Pro	Glu
		1220]	225				j	1230		
Val Phe	Gly	Leu	His	Glu	Asn	Ala	Asp	Пе	Thr	Lys	Asp	Asn	Gln	G] u
	1235]	1240		•]	1245			
Thr Asn	Gln	Leu	Phe	Glu	Gly	Val	Leu	Leu	Thr	Leu	Pro	Arg	Gln	Ser
1250]	1255					1260				
Gly Gly	Ser	Gly	Lys	Ser	Pro	Gln	Glu	Va]	Val	Glu	Glu	Leu	Ala	Gln
1265				1270]	1275				j	280
Asp Ile	Leu	Ser	Lys	Leu	Pro	Arg	Asp	Phe	Asp	Leu	Glu	Glu	Va]	Met
		j	1285]	1290				1	295	
Lys Leu	Tyr	Pro	Val	Val	Tyr	Glu	Glu	Ser	Met	Asn	Thr	Va]	Leu	Arg
		1300]	1305				!	1310		
Gln Glu	Leu	11e	Arg	Phe	Asn	Arg	Leu	Thr	Lys	Val	Val	Arg	Arg	Ser
	1315]	1320]	1325			
Leu lle	Asn	Leu	Gly	Arg	Ala	Пе	Lys	Gly	Gln	Va]	Leu	Met	Ser	Ser
1330					1335					1340				
Glu Leu	Glu	Glu	Val	Phe	Asn	Ser	Met	Leu	Val	Gly	Lys	Va]	Pro	Ala
1345				1350				j	1355				1	1360
Met Trp	Ala	Ala	Lys	Ser	Tyr	Pro	Ser	Leu	Lys	Pro	Leu	G1 y	Gly	Tyr
		1	1365]	1370				1	375	
Val Ala	Asp	Leu	Leu	Ala	Arg	Leu	Thr	Phe	Phe	Gln	Glu	Trp	Пе	Asp
		1380]	1385					1390		
Lve Gly	Pro	Dro	$V_{\alpha}1$	V = 1	Pho	Tro	TIA	Sor	C1v	Dho	Tur	Pho:	Thr	Gln

1395 1400 1405 Ser Phe Leu Thr Gly Val Ser Gln Asn Tyr Ala Arg Lys Tyr Thr lle 1415 1410 1420 Pro lle Asp His lle Gly Phe Glu Phe Glu Val Thr Pro Gln Glu Thr 1425 1430 1435 Val Met Glu Asn Asn Pro Glu Asp Gly Ala Tyr Ile Lys Gly Leu Phe 1445 1450 Leu Glu Gly Ala Arg Trp Asp Arg Lys Thr Met Gln Ile Gly Glu Ser 1460 1465 1470 Leu Pro Lys Ile Leu Tyr Asp Pro Leu Pro Ile Ile Trp Leu Lys Pro 1480 1485 Gly Glu Ser Ala Met Phe Leu His Gln Asp Ile Tyr Val Cys Pro Val 14951500 Tyr Lys Thr Ser Ala Arg Arg Gly Thr Leu Ser Thr Thr Gly His Ser 1505 1510 1515 Thr Asn Tyr Val Leu Ser Ile Glu Leu Pro Thr Asp Met Pro Gln Lys 1525 1530 His Trp Ile Asn Arg Gly Val Ala Ser Leu Cys Gln Leu Asp Asn 15401545 1550

<210> 3836

<211> 416

<212> PRT

<213> Homo sapiens

<400> 3836

Met Gln Gly Ala Pro Arg Ala Arg Phe Gly Ser Arg Thr Pro Pro Ala

1 5 10 15

Ala Ala Ser Ser Ser Ser Pro Ser Cys Thr Pro Ala Thr Ser Gln
20 25 30

Gly His Leu Arg Thr Pro Ala Gln Pro Pro Pro Ala Ser Pro Ala Ala 35 40 45

Ser Ser Ser Ser Phe Ala Ala Val Val Arg Tyr Gly Pro Gly Ala 50 55 60

Ala Ala Ala Gly Thr Gly Gly Thr Gly Ser Asp Ser Ala Ser Leu

65					70					75					80
Glu	Leu	Ser	Ala	Glu	Ser	Arg	Met	He	Leu	Asp	Ala	Phe	Ala	Gln	Gln
				85					90					95	
Cys	Ser	Arg	Val	Leu	Ser	Leu	Leu	Asn	Cys	Gly	Gly	Lys	Leu	Leu	Asp
			100					105					110		
Ser	Asn	His	Ser	Gln	Ser	Met	He	Ser	Cys	Val	Lys	Gln	Glu	Gly	Ser
		115					120					125			
Ser	Tyr	Asn	Glu	Arg	Gln	Glu	His	Cys	His	Пе	Gly	Lys	Gly	Val	His
	130					135					140				
Ser	Gln	Thr	Ser	Asp	Asn	Val	Asp	He	Glu	Met	Gln	Tyr	Met	Gln	Arg
145					150					155					160
Lys	G1n	Gln	Thr	Ser	Ala	Phe	Leu	Arg	Va]	Phe	Thr	Asp	Ser	Leu	G1n
				165					170					175	
Asn	Tyr	Leu	Leu	Ser	Gly	Ser	Phe	Pro	Thr	Pro	Asn	Pro	Ser	Ser.	Ala
			180					185					190		<i>:</i>
Ser	Glu	Tyr	Gly	His	Leu	Ala	Asp	Val	Asp	Pro	Leu	Ser	Thr	Ser	Pro
		195					200					205			
Val	His	Thr	Leu	Gly	Gly	Trp	Thr	Ser	Pro	Ala	Thr	Ser	Glu	Ser	His
	210					215					220				
Gly	His	Pro	Ser	Ser	Ser	Thr	Leu	Pro	Glu	Glu	Glu	Glu	Glu	Glu	Asp
225					230					235					240
Glu	Glu	Gly	Tyr	Cys	Pro	Arg	Cys'	Gln	Glu	Leu	Glu	Gln	Glu	Val	Пе
			,	245					250					255	
Ser	Leu	Gln	Gln	Glu	Asn	Glu	Glu	Leu	Arg	Arg	Lys	Leu	Glu	Ser]]e
			260					265					270		
Pro	Val	Pro	Cys	Gln	Thr	Va]	Leu	Asp	Tyr	Leu	Lys	Met	Val	Leu	Gln
		275					280					285			
His	His	Asn	Gln	Leu	Leu	lle	Pro	G1n	Pro	Ala	Asp	Gln	Pro	Thr	61u
	290					295					300				
Gly	Ser	Lys	Gln	Leu	Leu	Asn	Asn	Tyr	Pro		Tyr	He	Thr	Ser	Lys
305					310					315					320
Gln	Trp	Asp	Glu		Val	Asn	Ser	Ser		Lys	Asp	Gly	Arg	Arg	Leu
				325					330					335	
Leu	Arg	Tyr		He	Arg	Phe	Val		Thr	Thr	Asp	Glu		Lys	Tyr
			340					345					350		

Ser Cys Gly Leu Gly Lys Arg Lys Arg Ser Val Gln Ser Gly Glu Thr Gly Pro Glu Arg Arg Pro Leu Asp Pro Val Lys Val Thr Cys Leu Arg Gly Thr Ala Ser Phe Arg Ser Val Ser Pro Ser Val Ile Ser Phe His Arg Ile Gly Cys Gly Ser Pro Arg Thr Ser Val Gln Pro Ser Val Phe

<210> 3837

<211> 189

<212> PRT

<213> Homo sapiens

<400> 3837 Met Arg Asn Gln Ala Val Asn Val Ala Cys Arg Phe His Val Asp Val Ser Phe Gln Ile Ser Glv Phe Asn Ile Cys Asp Ala Leu Glv Thr Cys Gly Ser Ser Pro Leu Ser Phe Val Ser His Cys Pro Thr Gly Cys Gln Arg Gly Cys Ala Met Ser Tyr Ser Gln Gln Thr Trp Met Arg Val Ser Arg Thr Pro Asn Ser Pro Ser Ile Trp Cys Cys Gln Cys Cys Leu Gly Arg Leu Met Gly Ser Pro Ser Cys His Pro Pro Val Gly Pro Thr Met Gly Pro Arg Gly Ser Gly Arg Ala Pro Phe Thr lle Met His Asp Phe Val Cys Cys Leu Leu Ser Pro Gln Asp Pro Pro Gly Phe Trp Pro His Met Phe Gln Pro Gly Pro Gly Leu Gly Thr Arg Glu Val Leu Gly Ser

Trp Cys Arg Leu Leu Pro Gly Leu Gly Glu Leu Leu Ala Ala Leu Ser

Ser Leu Leu Gly Asp Pro Gly Phe Cys Ser Gly Lys Val Pro Ile Pro , 165 170 175 Leu Ile His Pro Ile Ser Ser Gly Thr Leu Trp Leu Ser 180 185

<210> 3838

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3838

Met Ala Leu Lys Phe Gln Gly Lys Tyr Asp Gln Ala Val His Gln Glu

1 5 10 15

Ala Gln Met Pro His Gly Gln Gly Asn Ser Phe Ser Arg Arg Pro Thr
20 25 30

Asp Phe Ser Cys Leu Gly Ser Glu Glu Ala Thr Lys Ile Cys Pro Ser 35 40 45

Thr Arg Leu Ser Gly Glu Met Ser Arg Leu His Phe His Gln Ser Leu 50 55 60

Ser Ser Ser Pro Thr Pro Gln Thr Thr Gly Arg Leu Gly Gly Ser Ser 65 70 75 80

Lys Phe Leu Val Ala Asp Ser Leu Val Val 11e Met Phe Gln Lys Leu 85 90 95

Lys Trp Glu Trp Lys Leu Ser Ser Phe Leu Tyr Ser Lys Asn Cys Leu 100 105 110

Gln His Ile Pro

115

<210> 3839

<211> 1264

<212> PRT

<213> Homo sapiens

<400> 3839

Met	Ser	Leu	Gln	Arg	Glu	Pro	Pro	Arg	Pro	Glu	Pro	Pro	Pro	Pro	Phe
1				5					10					15	
Pro	Pro	Leu	Pro	Leu	G1n	Pro	Pro	Pro	Pro	Arg	Glu	Ser	Ala	Ser	Arg
			20					25					30		
Ala	Glu	Gln	Pro	Pro	Arg	Pro	Pro	Arg	Glu	Thr	Val	Arg	Leu	Glu	Leu
		35					40					45			
Val	Leu	Lys	Asp	Pro	Thr	Asp	Glu	Ser	Cys	Val	Glu	Phe	Ser	Tyr	Pro
	50					55					60				
Glu	Leu	Leu	Leu	Cys	Gly	Glu	Gln	Arg	Lys	Lys	Leu	He	His	Thr	Glu
65					70					75					80
Asp	Pro	Phe	Asn	Asp	Glu	His	Gln	G1u	Arg	Gln	Glu	Val	Glu	Met	Leu
				85					90					95	,
Ala	Lys	Lys		Glu	Met	Lys	Tyr	-	Gly	Lys	Pro	Arg	Lys	His	Arg
			100					105					110		
Lys	Asp		Leu	GIn	Asp	Leu		Asp	He	Gly	Phe		Tyr	Asp	Glu
TI		115 D	DI	7.1			120	61		Tr.		125	,	17. 1	Б
Ihr		Pro	Phe	He	Asp		Ser	Glu	Ala	lyr		Glu	Leu	Val	Pro
4.1	130	,	TI	TI	1	135 T	C1	C.I.	Di	T.	140		Tr.I	6.1	Tr.
	ser	Leu	Inr	Inr		iyr	GIY	СГУ	Phe		11e	Asn	ihr	Gly	
145	Cln	Dho	A 200	Cl ₁	150	Con	Aan	Tha	C1.,	155	Aan	Aan	11.	Tha	160
Leu	OIH	THE	иц	165	Ма	361	лър	1111	170	Giu	Asp	игр	116	Thr 175	лър
Aen	Gln	lve	Hic		Pro	Pro	lve	Val		Lve	Ho	Lvc	Glu	Asp	Acn
11311		L) S	180	1 y	110	110	LyS	185	110	LyS	110	LyS	190	лэр	пэр
He	Glu	Met		Lvs	Arg	Lvs	Arg		Glu	Glu	G1 v	Glu		Glu	Lvs
		195		•			200					205			
Lys	Pro		Lys	Lys	Val	Pro		Gln	Leu	Gly	Val		Ala	Leu	Asn
	210					215					220				
Ser	His	Lys	Ser	Glu	Lys	Lys	Lys	Lys	Arg	Tyr	Lys	Asp	Ser	Leu	Ser
225					230					235					240
Leu	Ala	Ala	Met	11e	Arg	Lys	Phe	G1n	Lys	Glu	Lys	Asp	Ala	Leu	Lys
				245					250					255	
Lys	Glu	Ser	Asn	Pro	Lys	Val	Pro	Val	Thr	Leu	Ser	Thr	Pro	Ser	Leu
			260					265					270		
Asn	Lys	Pro	Pro	Cys	Ala	Ala	Ala	Ala	Leu	Gly	Asn	Asp	Val	Pro	Asp
		275					280					285			

Leu	Asn 290	Leu	Ser	Ser	Gly	Asp 295	Pro	Asp	Leu	Pro	11e 300	Phe	Val	Ser	Thr
A		Hi a	C1	1	Dl. a		C1	A 1 a.	C1	Λ		1	C1	M - 4	1
	Glu	nis	61u	Leu		OIU	GTU	мта	GIU		ила	Leu	GIU	Met	
305		DI		D)	310					315	4.7	C		0.1	320
Asp	Asp	Phe	Asp		Asp	Arg	Leu	Leu		Ala	Ala	Ser		Gly	Ser
				325			0.7		330					.335	
Pro	Leu	Ser	G1u 340	Ser	Gly	Gly	Glu	345	Gly	Thr	Thr	Thr	G1n 350	Pro	Thr
Tyr	Thr	Ser	Gln	Val	Met	Pro	Lys	Val	Val	Pro	Thr	Leu	Pro	Glu	Gly
		355					360					365			
Leu	Pro	Val	Leu	Leu	Glu	Lys	Arg	He	Glu	Asp	Leu	Årg	Va]	Ala	Ala
	370					375					380				
Lys	Leu	Phe	Asp	G]u	Glu	Gly	Arg	Lys	Lys	Phe	Phe	Thr	Gln	Asp	Met
385					390					395					400
Asn	Asn	lle	Leu	Leu	Asp	He	Glu	Leu	Gln	Leu	Gln	Glu	Leu	Gly	Pro
				405					410					415	
Val	He	Arg	Ser	Gly	Val	Tyr	Ser	His	Leu	Glu	Ala	Phe	Val	Pro	Cys
			420					425					430		
Asn	Lys	Glu	Thr	Leu	Val	Lys	Arg	Leu	Lys	Lys	Leu	His	Leu	Asn	Val
		435					440					445			
G1n	Asp	Asp	Arg	Leu	Arg	Glu	Pro	Leu	Gln	Lys	Leu	Lys	Leu	Ala	Val
	450					455					460				
Ser	Asn	Val	Met	Pro	Glu	Gln	Leu	Phe	Lys	Tyr	Gln	Glu	Asp	Cys	Gln
465					470					475					480
Ala	Arg	Ser	Gln	Ala	Lys	Cys	Ala	Lys	Leu	Gln	Thr	Asp	Glu	Glu	Arg
				485					490					495	
Glu	Lys	Asn	Gly	Ser	Glu	Glu	Asp	Asp	Asp	Glu	Lys	Pro	Gly	Lys	Arg
			500					505					510		
Val	Пе	Gly	Pro	Arg	Lys	Lys	Phe	His	Trp	Asp	Asp	Thr	He	Arg	Thr
		515					520					525			
Leu	Leu	Cys	Asn	Leu	Val	Glu	Пе	Lys	Leu	Gly	Cys	Tyr	Glu	Leu	Glu
	530					535					540				
Pro	Asn	Lys	Ser	Gln	Ser	Ala	Glu	Asp	Tyr	Leu	Lys	Ser	Phe	Met	Glu
545					550					555					560
Thr	Glu	Val	Lys	Pro	Leu	Trp	Pro	Lys	Gly	Trp	Met	Gln	Ala	Arg	Met
				565					570					575	

Leu	Phe	Lys	Glu 580	Ser	Arg	Ser	Val	His 585	Asn	His	Leu	Thr	Ser 590	Ala	Pro
Ala	Lve	Lvc		Va1	110	Pro	Ala		Lvc	Dro	lvo	Vol		C1	Vol.
пιа	ry5	595	Lys	vai	116	110	600	110	Lys	110	LyS	605	Lys	GJU	vai
Met	Val	Lvs	Thr	Leu	Pro	Leu	His	Ser	Phe	Pro	Thr		Leu	Lvs	Glu
	610	•				615					620				
Cys	Ser	Pro	Lys	Lys	Asp	Gln	Lys	Thr	Pro	Thr	Ser	Leu	Val	Ala	Ser
625					630					635					640
Val	Ser	Gly	Pro	Pro	Thr	Ser	Ser	Ser	Thr	Ala	Ala	Ile	Ala	Ala	Ala
				645					650					655	
Ser	Ser	Ser	Ser	Ala	Pro	Ala	Gln	Glu	Thr	He	Cys	Leu	Asp	Asp	Ser
			660					665					670		
Leu	Asp	Glu	Asp	Leu	Ser	Phe	His	Ser	Pro	Ser	Leu	Asp	Leu	Val	Ser
		675					680					685			
Glu	Ala	Leu	Ala	Val	He	Asn	Asn	Gly	Asn	Lys	Gly	Pro	Pro	Val	Gly
	690					695					700				
Ser	Arg	He	Ser	Met	Pro	Thr	Thr	Lys	Pro	Arg	Pro	Gly	Leu	Arg	Glu
705					710					715					720
Glu	Lys	Leu	Ala	Ser	He	Met	Ser	Lys	Leu	Pro	Leu	Ala	Thr	Pro	Lys
				725					730					735	
Lys	Leu	Asp	Ser	Thr	Gln	Thr	Thr	His	Ser	Ser	Ser	Leu	Пe	Ala	Gly
			740					745					750		
His	Thr	Gly	Pro	Val	Pro	Lys	Lys	Pro	Gln	Asp	Leu	Ala	His	Thr	Gly
		755					760					765			
He	Ser	Ser	Gly	Leu	He	Ala	Gly	Ser	Ser	lle	Gln	Asn	Pro	Lys	Val
	770					775					780				
Ser	Leu	Glu	Pro	Leu	Pro	Ala	Arg	Leu	Leu		Gln	G1 y	Leu	Gln	Arg
785					790					795					800
Ser	Ser	Gln	He		Thr	Ser	Ser	Ser		Gln	Thr	His	Val		Ser
				805					810					815	
Ser	Ser	Gln		Gln	He	Ala	Ala		Ser	His	Ala	Leu		Thr	Ser
			820					825					830		
Glu	Ala		Asp	Ala	Ser	Ser	Leu	Thr	Gln	Val	Thr		Val	His	Gln
		835					840				_	845			
HIS	Ser	Ala	.Val	GIn	GIn	Asn	Tyr	Val	Ser	Pro	Leu	Gln	Ala	Thr	He
	$O \subset D$					0.7					OCO				

Ser	Lys	Ser	G1n	Thr	Asn	Pro	Val	Val	Lys	Leu	Ser	Asn	Asn	Pro	GIn
865					870					875					880
Leu	Ser	Cys	Ser	Ser	Ser	Leu	He	Lys	Thr	Ser	Asp	Lys	Pro	Leu	Met
				885					890					895	
Tyr	Arg	Leu	Pro	Leu	Ser	Thr	Pro	Ser	Pro	Gly	Asn	Gly	Ser	Gln	Gly
			900					905					910		
Ser	His	Pro	Leu	Val	Ser	Arg	Thr	Val	Pro	Ser	Thr	Thr	Thr	Ser	Ser
		915					920					925			
Asn	Tyr	Leu	Ala	Lys	Ala	Met	Val	Ser	Gln	Ile	Ser	Thr	Gln	Gly	Phe
	930					935					940				
Lys	Ser	Pro	Phe	Ser	Met	Ala	Ala	Ser	Pro	Lys	Leu	Ala	Ala	Ser	Pro
945					950					955					960
Lys	Pro	Ala	Thr	Ser	Pro	Lys	Pro	Leu	Pro	Ser	Pro	Lys	Pro	Ser	Ala
				965					970					975	
Ser	Pro	Lys	Pro	Ser	Leu	Ser	Ala	Lys	Pro	Ser	Val	Ser	Thr	Lys	Leu
			980					985					990		
11e	Ser	Lys	Ser	Ásn	Pro	Thr	Pro	Lys	Pro	Thr	Val	Ser	Pro	Ser	Ser
		995					1000					1005			
Ser	Ser	Pro	Asn	Ala	Leu	Va]	Ala	Gln	Gly	Ser	His	Ser	Ser	Thr	Asn
]	010]	1015]	1020				
Ser	Pro	Val	His	Lys	Gln	Pro	Ser	Gly	Met	Asn	Ile	Ser	Arg	Gln	Ser
1025	5]	1030					1035				1	1040
Pro	Thr	Leu	Asn	Leu	Leu	Pro	Ser	Ser	Arg	Thr	Ser	Gly	Leu	Pro	Pro
]	045					1050					1055	
Thr	Lys	Asn	Leu	G1n	Ala	Pro	Ser	Lys	Leu	Thr	Asn	Ser	Ser	Ser	Thr
]	1060					1065					1070		
Gly	Thr	Val	Gly	Lys	Asn	Ser	Leu	Ser	Gly	He	Ala	Met	Asn	Val	Pro
]	1075					080					1085			
Ala	Ser	Arg	Gly	Ser	Asn	Leu	Asn	Ser	Ser	Gly	Ala	Asn	Arg	Thr	Ser
]	090]	095]	100				
Leu	Ser	Gly	Gly	Thr	Gly	Ser	Gly	Thr	Gln	Gly	Ala	Thr	Lys	Pro	Leu
1105	5			J	110]	1115				j	1120
Ser	Thr	Pro	His	Arg	Pro	Ser	Thr	Ala	Ser	Gly	Ser	Ser	Val	Val	Thr
			1	125					130				-	1135	
Ala	Ser	Val	Gln	Ser	Thr	Ala	Gly	Ala	Ser	Leu	Leu	Ala	Asn	Ala	Ser
		1	140				,	1145				,	1150		

Pro Leu Thr Leu Met Thr Ser Pro Leu Ser Val Thr Asn Gln Asn Val 1160 Thr Pro Phe Gly Met Leu Gly Gly Leu Val Pro Val Thr Met Pro Phe 1170 1175 1180 Gln Phe Pro Leu Glu lle Phe Gly Phe Gly Thr Asp Thr Ala Gly Val 1190 1195 Thr Thr Ser Gly Ser Thr Ser Ala Ala Phe His His Ser Leu Thr 1205 1210 Gln Asn Leu Leu Lys Gly Leu Gln Pro Gly Gly Ala Gln His Ala Ala 1220 1225 Thr Leu Ser His Ser Pro Leu Pro Ala His Leu Gln Gln Ala Phe His 1240 Asp Gly Gly Gln Ser Lys Gly Asp Thr Lys Leu Pro Arg Lys Ser Gln 1250 1255 1260

<210> 3840

<211> 1215

<212> PRT

<213> Homo sapiens

<400> 3840

 Met
 Ala
 Met
 Arg
 Leu
 His
 Phe
 Gln
 Pro
 Pro
 His
 Pro
 Asn
 Cys
 Leu
 Tyr

 Thr
 Val
 Glu
 Leu
 Glu
 Ala
 Phe
 Ala
 He
 Tyr
 Lys
 Val
 Leu
 Gln
 Ser
 Tyr

 Ser
 Asn
 He
 Glu
 Glu
 Asp
 Cys
 Thr
 Met
 Cys
 Pro
 Ser
 Trp
 Cys
 Leu
 Thr

 Val
 Arg
 Ala
 Arg
 Gly
 His
 Ser
 Tyr
 Phe
 Ala
 Gly
 Phis
 His
 Gly Glu Pro Thr Tyr Arg Ser Leu Leu Leu Val Asn Lys Asp Cys Lys 85 90 95

Leu Leu Thr Phe Ser Leu Ala Pro Gln Arg Gly Ser Asp Val Ile Leu

			100					105					110		
Arg	Pro	Thr	Ser	Gly	Leu	Val	Ala	Pro	Gly	Ala	His	Gln	Ile	Пe	Leu
		115					120					125			
He	Cys	Thr	Tyr	Pro	Glu	Gly	Ser	Ser	Trp	Lys	Gln	His	Thr	Phe	Tyr
	130					135					140				
Leu	Gln	Cys	Asn	Ala	Ser	Pro	Gln	Tyr	Leu	Lys	Glu	Val	Ser	Met	Tyr
145					150					155					160
Ser	Arg	Glu	Glu	Pro	Leu	Gln	Leu	Lys	Leu	Asp	Thr	His	Lys	Ser	Leu
				165					170					175	
Tyr	Phe	Lys	Pro	Thr	Trp	Va]	G1 y	Cys	Ser	Ser	Thr	Ser	Pro	Phe	Thr
			180					185					190		
Phe	Arg	Asn	Pro	Ser	Arg	Leu	Pro	Leu	Gln	Phe	Glu	Trp	Arg	Val	Ser
•		195					200					205			
G]u	Gln	His	Arg	Lys	Leu	Leu	Ala	Val	Gln	Pro	Ser	Arg	Gly	Leu	He
	210					215					220				
Gln	Pro	Asn	Glu	Arg	Leu	Thr	Leu	Thr	Trp	Thr	Phe	Ser	Pro	Leu	Glu
225					230					235					240
Glu	Thr	Lys	Tyr	Leu	Phe	Gln	Val	Gly	Met	Trp	Val	Trp	Glu	Ala	Gly
				245					250					255	
Leu	Ser	Pro	Asn	Ala	Asn	Pro	Ala	Ala	Thr	Thr	His	Tyr	Met	Leu	Arg
			260					265					270		
Leu	Val	Gly	Val	G] y	Leu	Thr	Ser	Ser	Leu	Ser	Ala	Lys	Glu	Lys	Glu
		275					280					285			
Leu		Phe	Gly	Asn	Val		Val	Asn	Ser	Lys		Ser	Arg	Phe	Leu
	290					295					300				
	Leu	Leu	Asn	Asp			Cys	Thr	Leu			Arg	Leu	Tyr	
305		0.3			310					315		_		_	320
Glu	GIn	Gly	Ser		Glu	Ala	Val	Asp		His	Pro	Leu	Ala		GIn
			TO I	325	0.1			15	330		6	0.1		335	
Leu	Asp	Arg		GIU	61 y	Ser	Met		Pro	Arg	Ser	GIn		lhr	He
C	ī	TI	340	C	ь	,	C1	345	c	61	т	C	350 T	TI	т э
Cys	Leu		Ara	Cys	Pro	Lys	Gln	Arg	Ser	GIN	lyr		пр	Thr	116
Thu	Т,,,,,	355	يدة ا	Lau	C	ш;	360	۸	Λ ~ · ·	1	A] ~	365	C1	1	C1
1111	370	261,	Leu	ren	zer.	375	Arg	ASP	ASII	Lys	380	OIÀ	01 Å	LyS	OID
C1u		Cvc	Cvc	Val			Vol	110	Vo.1	Tur		Lau	Lou	Sor	110

385					390					395					400
Leu	Asp	Val	Ser	Ser	Met	G1 y	Ser	Ala	Glu	Gly	lle	Thr	Arg	Lys	His
				405					410					415	
Leu	Trp	Arg	Leu	Phe	Ser	Leu	Asp	Leu	Leu	Asn	Ser	Tyr	Leu	Glu	Arg
			420					425					430		
Asp	Pro	Thr	Pro	Cys	Glu	Leu	Thr	Tyr	Lys	Val	Pro	Thr	Arg	His	Ser
		435					440					445			
Met	Ser	Gln	He	Pro	Pro	Val	Leu	Thr	Pro	Leu	Arg	Leu	Asp	Phe	Asn
	450					455					460				,
Phe	Gly	Ala	Ala	Pro	Phe	Lys	Ala	Pro	Pro	Ser	Val	Val	Phe	Leu	Ala
465					470					475					480
Leu	Lys	Asn	Ser	Gly	Val	Val	Ser	Leu	Asp	Trp	Ala	Phe	Leu	Leu	Pro
				485					490					495	
Ser	Asp	GIn	Arg	He	Asp	Val	Glu	Leu	Trp	Ala	Glu	Gln	Ala	Glu	Leu
			500					505					510		
Asn	Ser	Thr	Glu	Leu	His	Gln	Met	Arg	Val	Gln	Asp	Asn	Cys	Leu	Phe
		515					520					525			
Ser	11e	Ser	Pro	Lys	Ala	Gly	Ser	Leu	Ser	Pro	Gly	Gln	Glu	Gln	Met
	530					535					540				
Va]	Glu	Leu	Lys	Tyr	Ser	His	Leu	Phe	He	Gly	Thr	Asp	His	Leu	Pro
545					550					555					560
Va]	Leu	Phe	Lys		Ser	His	Gly	Arg	Glu	Пе	Leu	Leu	Asn	Phe	He
				565					570					575	
Gły	Val	Thr		Lys	Pro	Glu	Gln		Tyr	Va]	llis	Phe	Thr	Ser	Thr
			580		_			585					590		
Thr	His	Gln	Phe	Пе	Pro	He		He	Gly	Asp	Thr		Pro	Pro	Arg
C 1		595 -	6.1		<i>T</i>		600					605			
GIn		Tyr	Glu	Leu	Tyr		Gly	GIy	Ser	Val		Va,L	Thr	Tyr	Glu
17 1	610	TI		1: 1		615	0.7		0.1	0.1	620		***		
	GIN	Thr	Asp	Val		Ser	61n	Val	GIn		Lys	Asn	Phe	Asp	
625	11	nı	C	<i>C</i>	630	4	D		CI	635		C1	D	0.1	640
Pro	116	Phe	Cys		Leu	Asn	Pro	Lys		GJU	116	GIn	Pro		Ser
The	Alo	Arron	Verl	645 Lov	T 2255	11.	DI	C	650	11 -	<i>c</i> 1	A 1 -	1	655	т.
1111	MIA	Arg	660	reu	пр	116	rne		rro	116	O.I.U	Ala		ını	1 y x
Thr	V a I	Asp		Dro	ΠA	His	11.	665	C1	Tana	Λ .~ . ~	C ~ ~	670	1	11.
	* CI L	HOD	1 CL L	110	1 1 1	1115	1 1 (-3	1 (-,11	THE	1111	ASIL	. J (-) [11121	1 (-) 1	1.10

		675					680					685			
His	Phe	Gln	Gly	Val	Gly	Tyr	Asn	Pro	His	Met	Met	Gly	Asp	Thr	Ala
	690					695					700				
Pro	Phe	His	Asn	Пе	Ser	Ser	Trp	Asp	Asn	Ser	Ser	He	His	Ser	Arg
705					710					715					720
Leu	Val	Val	Pro	Gly	Gln	Asn	Val	Phe	Leu	Ser	Gln	Ser	His	He	Ser
				725					730					735	
Leu	Gly	Asn	He	Pro	Val	Gln	Ser	Lys	Cys	Ser	Arg	Leu	Leu	Phe	Leu
			740					745					750		
Asn	Asn	He	Ser	Lys	Asn	Glu	Glu	He	Ala	Phe	Ser	Trp	Gln	Pro	Ser
		755					760					765			
Pro	Leu	Asp	Phe	Gly	Glu	Val	Ser	Val	Ser	Pro	Met	He	Gly	Val	Val
	770					775					780				
Ala	Pro	Glu	Glu	Thr	Val	Pro	Phe	Val	Va]	Thr	Leu	Arg	Ala	Ser	Val
785					790					795					800
His	Ala	Ser	Phe	Tyr	Ser	Ala	Asp	Leu	Val	Cys	Lys	Leu	Tyr	Ser	Gln
				805					810					815	
Gln	Leu	Met	Arg	Gln	Tyr	His	Lys	Glu	Leu	Gln	Glu	Trp	Lys	Asp	Glu
			820					825					830		
Lys	Val	Arg	Gln	Glu	Val	Glu	Phe	Thr	He	Thr	Asp	Met	Lys	Val	Lys
		835					840					845			
Lys	Arg	Thr	Cys	Cys	Thr	Ala	Cys	Glu	Pro	Ala	Arg	Lys	Tyr	Lys	Thr
	850					855					860				
Leu	Pro	Pro	Пe	Lys	Asn	GIn	Gln	Ser	Val	Ser	Arg	Pro	Ala	Ser	Trp
865					870					875					880
Lys	Leu	Gln	Thr	Pro	Lys	Glu	Glu	Va]	Ser	Trp	Pro	Cys	Pro		Pro
				885					890					895	
Pro	Ser	Pro		He	Leu	Cys	Leu		Leu	Thr	Ala	Arg		His	Ala
			900					905					910		
Thr	Asp		Phe	Leu	Ala	Asn		Phe	Ser	Gly	Phe		Cys	His	Phe
		915					920					925			
Leu		Arg	Glu	Leu	Pro	Lys	Arg	Lys	Ala	Pro		Glu	Glu	Ser	Glu
	930					935					940				
	Ser	Glu	Glu	Lys		Pro	Asn	Lys	Trp		Pro	Va]	Ser	Lys	
945		0.7	,	,	950			,	TC)	955	, ,	1 1		6.3	960
1 110	1 17.65	1.15	1 011	1 01.	M cv. I	Acon	1.1.25	1 011	1 10 10	1 15 15	110	110	11 12 17	$C \setminus V$	Low

	965	970	975
Leu Glu Asp Ly	s Asn Phe His	Glu Ala Val Asp G	ln Ser Leu Val Glu
986)	985	990
Gln Val Pro Ty	Phe Arg Gln	Phe Trp Asn Glu G	In Ser Thr Lys Phe
995		1000	1005
Met Asp Gln Ly	s Asn Ser Leu	Tyr Leu Met Pro I	le Leu Pro Val Pro
1010	1015	10	20
Ser Ser Ser Tr	o Glu Asp Gly	Lys Gly Lys Gln P	ro Lys Glu Asp Arg
1025	1030	1035	1040
Pro Glu His Ty	· Pro Gly Leu	Gly Lys Lys Glu G	lu Gly Glu Glu Glu
	1045	1050	1055
Lys Gly Glu Gl	ı Glu Glu Glu	Glu Leu Glu Glu G	lu Glu Glu Glu Glu
106)	1065	1070
Glu Glu Thr Gl	ı Glu Glu Glu	Leu Gly Lys Glu G	lu lle Glu Glu Lys
1075		1080	1085
Glu Glu Glu Ar	g Asp Glu Lys	Glu Glu Lys Val S	er Trp Ala Gly lle
1090	1095	11	00
Gly Pro Thr Pr	Gln Pro Glu	Ser Gln Glu Ser M	let Gln Trp Gln Trp
1105	1110	1115	1120
Gln Gln Gln Le	ı Asn Val Met	Val Lys Glu Glu G	ln Glu Gln Asp Glu
	1125	1130	1135
Lys Glu Ala Il	e Arg Arg Leu	Pro Ala Phe Ala A	sn Leu Gln Glu Ala
114)	1145	1150
Leu Leu Glu As	n Met lle Gln	Asn 11e Leu Val G	lu Ala Ser Arg Gly
1155		1160	1165
Glu Val Val Le	ı Thr Ser Arg	Pro Arg Val 11e A	la Leu Pro Pro Phe
1170	1175	11	80
Cys Val Pro Ar	g Ser Leu Thr	Pro Asp Thr Leu L	eu Pro Thr Gln Gln
1185	1190	1195	1200
Ala Glu Val Le	ı His Pro Val	Val Pro Leu Pro T	hr Asp Leu Pro
	1205	1210	1215

⟨211⟩ 124

<212> PRT

<213> Homo sapiens

<400> 3841

Met Gly Glu Asn Ala Val lle Pro Phe Leu Ser Pro Gln Lys Gly His

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Gly Cys Arg Glu Trp Trp Leu Met Pro 11e 11e Pro Ala Leu Trp Glu 20 25 30

Ala Glu Val Gly Arg Ser Pro Glu Val Arg Ser Leu Arg Pro Ala Trp
35 40 45

Leu Thr Trp Arg Asn Pro Phe Ser Thr Lys Asn Thr Lys Ile Ser Gln 50 55 60

Ser Trp Trp Arg Ala Pro Val IIe Pro Ala Thr Trp Glu Thr Glu Ala 65 70 75 80

Gly Glu Ser Leu Glu Pro Gly Arg Leu Glu Val Ala Val Ser Arg Asp 85 90 95

Trp Ala Thr Ala Leu Gln Pro Gly Gln Trp Ser lle Ser Lys Lys
100 105 110

Lys Glu Arg Lys Lys Glu Gly Gly Cys His Gly
115 120

<210> 3842

<211> 103

<212> PRT

<213> Homo sapiens

<400> 3842

Met Arg Gly Leu Gln Trp Asn Gln Asp Pro Glu His Arg Arg Val Gly
1 5 10 15

Ser Pro Ala Cys Ser Ala Ser Ser Phe Leu Leu Leu Leu Leu Phe Glu 20 25 30

Thr Glu Ser Cys Ser Val Phe Arg Leu Glu Cys Ser Gly Arg 11e Leu 35 40 45

Ala His Cys Asn Leu His Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser 50 55 60

Ala Ser Arg Val Ala Gly Thr Thr Gly Met Cys His His Ala Leu Leu

70 75 Ile Phe Val Phe Leu Val Glu Met Gly Phe His Tyr Val Gly Gln Val 85 90 Gly Leu Asp Leu Leu Thr Leu 100 <210> 3843 <211> 151 <212> PRT <213> Homo sapiens <400> 3843 Met Val Pro Met His Cys Phe Trp Val IIe IIe Arg Arg Arg Met Asn Ser Gly His Trp Ala Thr Asp Gly Gln Leu Leu Ala Pro Gly Leu Gly 25 Leu Cys Val Gly Thr His Ala Ser Ala Leu Thr Cys Ser Cys Ser Ser 35 40 45 Met Val Pro Ser Leu Ile Cys Gly Val Gln Arg Arg Arg Met Ala Ala 55 Ser Leu Leu Tyr Pro Val Tyr Pro Ser Pro Cys Cys Trp His Leu Arg 70 75 Leu Ser Pro His Ala Leu lle Ser Leu Cys Thr Thr Tyr Gln Glu Val 85 90 Leu Gln Trp Trp Leu Cys Leu Pro Ser Leu Arg Thr Leu Lys Thr Leu 105 Ala Leu Pro Arg Gln Gln Ala Leu Pro Thr Ser Ala Phe Pro Pro Asn 115 120 125 Asp Met Ala Met Phe Cys Phe Pro Arg Ser Ile Leu Ser His Ser Gln 130 135 140

Gln Gly Val Asp Ile Leu Val

150

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<213> Homo sapiens
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Met Leu Cys Phe Ile Gln Glu Ala Cys Arg Leu Glu Asp Val Pro Val
             20
                                 25
                                                      30
His Phe Phe Arg Leu His Lys Asp Lys Lys Glu Gly Arg Pro Thr Val
         35
                             40
                                                  45
lle Leu Gly Leu Ala Leu Arg Gly Val His lle Tyr Gln Glu Val Asp
                         55
                                              60
Arg Ala Pro Gln Leu Leu Tyr Asp Leu Pro Trp Pro His Val Gly Lys
 65
                     70
                                          75
Leu Ala Phe Leu Gly Lys Lys Leu Glu 11e Gln Leu Asp Gly Leu Pro
                                     90
Ala Ala Gln Lys Leu Val Tyr Tyr Thr Gly Cys Thr Trp Arg Ser Arg
            100
                                 105
                                                     110
His Leu Leu His Leu Leu Arg Ala Ser His Gln Leu His Leu Arg Val
        115
                            120
                                                 125
Arg Pro Thr Leu Gln Gln Leu Arg Gln Arg Glu Glu Ala Glu Glu Lys
                        135
                                             140
Gln His Tyr Arg Glu Ser Tyr lle Ser Asp Glu Leu Glu Leu Asp Leu
145
                    150
                                         155
                                                             160
Ala Ser Arg Ser Phe Pro Gly Ser Gly Val Ser Ser Gln His Cys Pro
                                    170
His Cys Leu Ser Arg His Ser Ala Asp Scr His Gly Ser Ser Tyr Thr
            180
                                                     190
                                185
Ser Gly 11e Lys Ala Asn Ser Trp Leu Arg Glu Ser Arg Glu Met Ser
                            200
                                                 205
Val Asp Val Pro Leu Glu Val His Gly Leu His Glu Lys Glu Pro Ser
                        215
Ser Ser Pro Arg Thr Ser Arg Ser His Pro Ser Thr Arg Gly Asp Ser
225
                    230
                                         235
                                                             240
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Gln Ala Thr Arg Gln Glu Pro Cys Thr Gln Val Arg Thr Arg Gly Gln

<211> 267

245 250 255

Ser Ala Glu Ala Val His Gln Phe Pro Pro Val 260 265

<210> 3845

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3845

Met Leu Glu Glu Pro Phe Ser Pro Pro Leu Arg Cys Gly Gly Pro Ser

1 5 10 15

1 5 10 15

Leu Gly Trp Pro Arg Pro Glu Pro Ala Pro Ser Ala Cys Arg Glu Val 20 25 30

Trp Arg Glu Arg Pro Gln Ala Gly Thr Gly Ala Ala Arg Ser Asp Gly
35 40 45

Arg Pro Ala Arg Val Pro Ser Gly Ser Gly Leu Ser Gly Ser Cys Gly 50 55 60

Gly Gly Ala Gly Tyr Pro Ser Thr Ala Gly Leu Pro Ala Pro Arg Ser 65 70 75 80

Asn Ser Arg Ser Ala Ser Ala Ala Ser Pro Pro Gly Arg Ala Arg Asp 85 90 95

Leu Gln Pro Ala Leu Pro Glu Ser Thr Arg Gly Gly Leu Pro Ala Ala 100 105 110

Lys Pro Pro

115

<210> 3846

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3846

Met Ser Ala His Gln Gln Gly Glu Thr Ser Leu Pro Arg Ala Gln Gly

5 10 Gly Arg Ser Glu Leu Ala Asp Ser Ser Trp Lys Pro Val Arg Gly Ala 20 25 Val Pro Arg Gly Met Thr Leu Ala Pro Ala Gln Ile Leu Leu Cys 35 40 Gly Leu Pro Gly Leu Pro Ser Pro Pro Pro Gly Leu Leu Trp Thr Asp 55 lle Ala Gln Ala Gly Val Gln Trp Cys Asp Leu Gly Ser Leu Gln Pro 65 70 75 80 Pro Pro Pro Arg Phe Lys Leu Phe Ser Cys Leu Ser Leu Leu Ser Ser 85 90 Trp Asp Tyr Arg Ser Trp Trp Leu Trp Leu Val Ile Pro Ala Ser Cys 105 Trp Leu Gln Val Asp Asp Ala His Leu Ala Ala Asp Asp Leu Cys Thr 115 120 125 Lys

<210> 3847

<211> 217

<212> PRT

<213> Homo sapiens

<400> 3847

Met Trp Val Thr Lys Phe Lys Gly Arg Glu Lys Lys Leu Met Lys Ile
1 5 10 15

Glu Ala His Leu Gly Leu Pro Ser Phe Ser Gly Ser Thr Leu Asp Phe
20 25 30

Phe Arg Ala Trp Ala Leu Ser Arg Glu Leu His Leu Ile Pro Trp Ala 35 40 45

Ala Arg Ser Ser Leu Gly Pro Arg Leu Trp Arg Leu Leu Gly Gly Pro
50 55 60

Phe Leu Cys Leu His Ser Arg Arg Leu Ala Gly Glu Thr Gln Asp Leu 65 70 75 80

Arg Leu Pro Gly His Leu His Cys Cys Pro Leu Gly Phe Cys Leu Arg

				85					90					95	
Leu	Cys	Leu	Gly	Leu	Cys	Leu	Ser	Leu	Arg	Leu	Gln	Leu	Gly	Gly	Arg
			100					105					110		
Leu	Leu	Val	Arg	Ala	Arg	Phe	Gly	Gly	Pro	Gln	Gly	Phe	Ser	Ser	Pro
		115					120					125			
Gly	Thr	Leu	Pro	Leu	Leu	Val	Asp	Gly	His	Arg	Gly	Arg	Ser	Pro	Cys
	130					135					140				
Leu	Gly	Leu	His	Pro	Ala	Val	Ala	Glu	Asp	Leu	Val	Asp	Val	Glu	Pro
145					150					155					160
Pro	Val	Asp	Val	Gly	Leu	Gln	His	Val	Val	Asp	Glu	Val	Leu	Ala	Leu
				165					170					175	
Ala	Cys	G1n	Val	Leu	Gly	Ala	Trp	G] u	Val	Asp	Ala	Val	Leu	Leu	Leu
			180					185					190		
Asp	Thr	G1n	His	Leu	Leu	Asp	Val	Gly	Val	Val	Val	Gly	His	G1 y	Ala
		195					200					205			
Ala	Asp	His	Asp	Val	Glu	Asp	His	Ala							
	210					215									

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3848

Met Lys Ser Gln Met Glu Leu Arg Ile Lys Asp Leu Glu Phe Lys Leu I 5 10 15

Tyr Lys Ala Arg Thr Ser Gln Ala Asp Cys Asn Thr Thr Glu Leu Glu 20 25 30

Lys Tyr Lys Glu Leu Tyr Leu Glu Glu Leu Lys Leu Arg Glu Ser Leu 35 40 45

Ser Asp Glu Leu Asn Lys Arg Lys Glu lle Leu Ala Asp Val Ser Thr 50 55 60

Lys Leu Leu Gln Glu Lys Glu Trp Ser Arg Ser Leu Phe Thr Ser His 65 70 75. 80

Thr Thr Arg Pro Val Leu Glu Ser Ala Cys Asn Gly Asn Leu Asn Glu

Asn Leu Gly Leu Ser Arg Ile His Ile Pro Arg Glu Ala Leu Arg Ile Pro Thr Leu Asn Ser Leu Ser Ser Asn Ile Arg Met Glu Ser Asp Leu Ser Lys Glu Asp Lys Asn Gly Gly His Phe Leu Glu Leu Gln Ala <210> 3849 <211> 609 <212> PRT <213> Homo sapiens <400> 3849 Met Leu Leu Leu Ala Ser Thr Glu Pro Ser Ser Leu Cys Tyr Val Glu Thr Val Asp Ile Asp Gly Glu Thr Asn Leu Lys Phe Arg Gln Ala Leu Met Val Thr His Lys Glu Leu Ala Thr Ile Lys Lys Met Ala Ser Phe Gln Gly Thr Val Thr Cys Glu Ala Pro Asn Ser Arg Met His His Phe Val Gly Cys Leu Glu Trp Asn Asp Lys Lys Tyr Ser Leu Asp Ile Gly Asn Leu Leu Arg Gly Cys Arg 11e Arg Asn Thr Asp Thr Cys Tyr Gly Leu Val lle Tyr Ala Gly Phe Asp Thr Lys Ile Met Lys Asn Cys Gly Lys 11e His Leu Lys Arg Thr Lys Leu Asp Leu Leu Val Asn Lys Leu Val Val Val IIe Phe IIe Ser Val Val Leu Val Cys Leu Val Leu Ala Phe Gly Phe Gly Phe Ser Val Lys Glu Phe Lys Asp His His Tyr

Tyr Leu Ser Gly Val His Gly Ser Ser Val Ala Ala Glu Ser Phe Phe

				165					170					175	
Val	Phe	Trp	Ser	Phe	Leu	He	Leu	Leu	Ser	Va1	Thr	He	Pro	Met	Ser
			180					185					190		
Met	Phe	lle	Leu	Ser	Glu	Phe	He	Tyr	Leu	Gly	Asn	Ser	Val	Phe	Пе
		195					200					205			
Asp	Trp	Asp	Val	Gln	Met	Tyr	Tyr	Lys	Pro	Gln	Asp	Val	Pro	Ala	Lys
	210					215					220				
Ala	Arg	Ser	Thr	Ser	Leu	Asn	Asp	His	Leu	Gly	Gln	Val	Glu	Tyr	He
225					230					235					240
Phe	Ser	Asp	Lys	Thr	Gly	Thr	Leu	Thr	Gln	Asn	He	Leu	Thr	Phe	Asn
				245					250					255	
Lys	Cys	Cys	He	Ser	Gly	Arg	Val	Tyr	Gly	Pro	Asp	Ser	Glu	Ala	Thr
		,	260					265					270		
Thr	Arg	Pro	Lys	Glu	Asn	Pro	Tyr	Leu	Trp	Asn	Lys	Phe	Ala	Asp	Gly
		275					280					285			
Lys	Leu	Leu	Phe	His	Asn	Ala	Ala	Leu	Leu	His	Leu	Val	Arg	Thr	Asn
	290					295					300				
Gly	Asp	Glu	Ala	Val		Glu	Phe	Trp	Arg		Leu	Ala	He	Cys	
305					310					315					320
Thr	Val	Met	Val		Glu	Ser	Pro	Arg		Arg	Pro	Asp	Gln		Leu
				325	_				330					335	
Tyr	GIn	Ala	Ala	Ser	Pro	Asp	Glu		Ala	Leu	Val	Thr		Ala	Arg
	D1	0.1	340		ъ.			345	m)	0.3		m.,	350		
Asn	Phe		Tyr	Val	Phe	Leu		Arg	lhr	GIn	Asp		Val	lhr	He
	C1	355	C I	C1	C I		360	т	C1	V7 1	,	365	7.1	15 .	
меι		Leu	Gly	GIU	61 u		vai	ıyr	GIn	vai		Ala	11e	мет	Asp
Dho	370	Con	Tha	Ana	Lva	375	Mot	Con	Vol	Lau	380 Vol.	Ana	Lua	Dmo	C1
385	ASII	Sei	Thr	AIG	390	Alg	met	Sel	vai	395	vai	AIG	LyS	L10	400
505					330					333					-100
Glv	Ala	He	Cys	Len	Tvr	Thr	Lvs	Glv	Ala	Asn	Thr	Val	He	Phe	Glu
01,	777 C.	110	0,5	405	1 7 1	• • • • • • • • • • • • • • • • • • • •	159.0	019	410	пор	1111	,	110	415	GIU
Arg	Leu	His	Arg		Glv	Ala	Met	Glu		Ala	Thr	Glu	Glu		Leu
			420	6	- • ;			425					430		.,
Ala	Ala	Phe	Ala	Gln	Glu	Thr	Leu		Thr	Leu	Cvs	Leu		Tvr	Arg
-		135	-			-	440	G	-		•	445		y -	J

```
Glu Val Ala Glu Asp Ile Tyr Glu Asp Trp Gln Gln Arg His Gln Glu
    450
                        455
                                            460
Ala Ser Leu Leu Gln Asn Arg Ala Gln Ala Leu Gln Gln Val Tyr
465
                    470
                                        475
                                                             480
Asn Glu Met Glu Gln Asp Leu Arg Leu Leu Gly Ala Thr Ala Ile Glu
                485
                                    490
Asp Arg Leu Gln Asp Gly Val Pro Glu Thr Ile Lys Cys Leu Lys Lys
                                505
                                                    510
Ser Asn Ile Lys Ile Trp Val Leu Thr Gly Asp Lys Gln Glu Thr Ala
        515
                            520
                                                525
Val Asn Ile Gly Phe Ala Cys Glu Leu Leu Ser Glu Asn Met Leu Ile
                        535
                                            540
Leu Glu Glu Lys Glu lle Ser Arg lle Leu Glu Thr Tyr Trp Glu Asn
545
                    550
                                        555
                                                             560
Ser Asn Asn Leu Leu Thr Arg Glu Ser Leu Ser Gln Val Lys Leu Ala
                565
                                    570
Leu Val Ile Asn Gly Asp Phe Leu Ala Pro Val Pro Ala Val Pro Glu
                                585
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Val Arg Ala Pro Ala Gly Cys Thr Ala Ser Pro Gly Leu Gln Ser Pro
        595
                            600
                                                605
Pro
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<211> 483

<212> PRT

<213> Homo sapiens

<400> 3850

 Met Thr Met Lys Val Asp Met Ser Gly Leu Gln Ala Lys Asn Glu 11e

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 10
 15

 Leu Ser Glu Lys Leu Ser Asn Ala Glu Ser Lys 11e Asn Ser Leu Gln
 20
 25
 30

 11e Gln Leu His Asn Thr Arg Asp Ala Leu Gly Arg Glu Ser Leu I1e
 35
 40
 45

Leu	Glu	Arg	Val	Gln	Arg	Asp	Leu	Ser	Gln	Thr	Gln	Cys	Gln	Lys	Lys
	50					55					60				
Glu	Thr	Glu	Gln	Met	Tyr	Gln	He	Glu	Gln	Ser	Lys	Leu	Lys	Lys	Tyr
65					70					75					80
He	Ala	Lys	Gln	Glu	Ser	Val	Glu	Glu	Arg	Leu	Ser	Gln	Leu	Gln	Ser
				85					90					95	
Glu	Asn	Met	Leu	Leu	Arg	Gln	Gln	Leu	Asp	Asp	Ala	His	Lys	Lys	Ala
			100					105					110		
Asn	Ser	Gln	Glu	Lys	Thr	Ser	Ser	Thr	He	Gln	Asp	Gln	Phe	His	Ser
		115					120					125			
Ala	Ala	Lys	Asn	Leu	Arg	Ala	Glu	Ser	Glu	Lys	Gln	He	Leu	Ser	Leu
	130					135					140				
Gln	G]u	Lys	Asn	Lys	Glu	Leu	Met	Asp	Glu	Tyr	Asn	His	Leu	Lys	Glu
145					150					155					160
Arg	Met	Asp	Gln	Cys	Glu	Lys	Glu	Lys	Ala	Gly	Arg	Lys	Val	Val	Met
				165					170					175	
Arg	G] u	Phe	Gln	G1n	Glu	Trp	Thr	Asp	Leu	Leu	Lys	Gln	Gln	Pro	Thr
			180					185					190		
Ser	Glu	Ala	Thr	Ser	Arg	Cys	His	Пe	Asn	Leu	Asp	Glu	Thr	Gln	Asp
		195					200					205			
Ser	Lys		Lys	Leu	Gly	Gln	lle	Arg	Ser	Glu	lle	Asp	Leu	Thr	Glu
	210					215					220				
Ala	Gln	Glu	Thr	Val	Pro	Ser	Arg	Cys	Leu	His	Leu	Asp	Ala	Glu	Asn
225					230					235					240
Glu	Val	Leu	Gln	Leu	G1n	Gln	Thr	Leu	Phe	Ser	Met	Lys	Ala	He	Gln
				245					250					255	
Lys	G]n	Cys	Glu	Thr	Leu	Gln	Lys	Asn	Lys	Lys	Gln	Leu	Lys	Gln	Glu
			260					265					270		
Val	Va]	Asn	Leu	Lys	Ser	Tyr	Met	Glu	Arg	Asn	Met	Leu	Glu	Arg	Gly
		275					280					285			
Lys	Ala	Glu	Trp	His	Lys	Leu	Leu	He	Glu	Glu	Arg	Λla	Arg	Lys	Glu
	290					295					300				
He	Glu	Glu	Lys	Leu	Asn	Glu	Ala	He	Leu	Thr	Leu	Gln	Lys	Gln	Ala
305					310					315					320
Ala	Va]	Ser	His	Glu	G]n	Leu	Val	Gln	Leu	Arg	Glu	Asp	Asn	Thr	Thr

				325					330					335	
Ser	Пе	Lys	Thr	Gln	Met	Glu	Leu	Thr	11e	Lys	Asp	Leu	Glu	Ser	Glu
			340					345					350		
11e	Ser	Arg	11e	Lys	Thr	Ser	Gln	Ala	Asp	Phe	Asn	Lys	Thr	Glu	Leu
		355					360					365			
Glu	Arg	Tyr	Lys	Glu	Leu	Tyr	Leu	Glu	Glu	Val	Lys	Val	Arg	Glu	Ser
	370					375					380				
Leu	Ser	Asn	Glu	Leu	Ser	Arg	Thr	Asn	Glu	Met	He	Ala	Glu	Val	Ser
385					390					395					400
Thr	Gln	Leu	Thr	Val	Glu	Lys	Glu	Gln	Thr	Arg	Ser	Arg	Ser	Leu	Phe
				405					410					415	
				405					410					415	
Thr	Ala	Tyr	Ala		Arg	Pro	Va]	Leu		Ser	Pro	Cys	Val		Asn
Thr	Ala	Tyr	Ala 420		Arg	Pro	Val	Leu 425		Ser	Pro	Cys	Val 430		Asn
			420	Thr		Pro Leu		425	Glu	-			430	Gly	
			420	Thr				425	Glu	-			430	Gly	
Leu	Asn	Asp 435	420 Ser	Thr Glu	Gly		Asn 440	425 Arg	Glu Lys	His	lle	Pro 445	430 Arg	GIy Lys	Lys
Leu	Asn	Asp 435	420 Ser	Thr Glu	Gly	Leu	Asn 440	425 Arg	Glu Lys	His	lle	Pro 445	430 Arg	GIy Lys	Lys
Leu Arg	Asn Ser 450	Asp 435 Ala	420 Ser Leu	Thr Glu Lys	Gly	Leu Met	Asn 440 Glu	425 Arg Ser	Glu Lys Tyr	His Leu	lle Leu 460	Pro 445 Lys	430 Arg Val	GIy Lys Ser	Lys Tyr
Leu Arg	Asn Ser 450	Asp 435 Ala	420 Ser Leu	Thr Glu Lys	Gly	Leu Met 455	Asn 440 Glu	425 Arg Ser	Glu Lys Tyr	His Leu	lle Leu 460	Pro 445 Lys	430 Arg Val	GIy Lys Ser	Lys Tyr

<211≥ 365

<212> PRT

<213> Homo sapiens

<400> 3851

 Met
 Val
 Arg
 Val
 Pro
 Ser
 Pro
 Phe
 Gly
 Pro
 Arg
 Glu
 Glu
 Ser
 Thr
 Tyr

 1
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 6
 10
 Ala
 10
 10
 10
 15
 15

 Val
 Leu
 Arg
 Asp
 Ala
 Glu
 Ala
 Glu
 Asp
 Pro
 Gly
 Ala
 Ala
 Pro
 Gly
 Ala
 Pro
 Gly
 Ala
 Ala
 Pro
 Gly
 Ala
 Pro

Thr Trp Ala Pro Pro Ser Asp Thr Arg Gly Asn Pro Ile Thr Ala Tyr

	50					55					60				
Thr	He	Glu	Arg	Cys	Gln	Gly	Glu	Ser	Gly	G]u	Trp	Пe	Ala	Cys	His
65					70					75					80
Glu	Ala	Pro	Gly	Gly	Thr	Cys	Arg	Cys	Pro	11e	Gln	Gly	Leu	Val	Glu
				85					90					95	
Gly	Gln	Ser	Tyr	Arg	Phe	Arg	Val	Arg	Ala	He	Ser	Arg	Val	Gly	Ser
			100					105					110		
Ser	Val	Pro	Ser	Lys	Ala	Ser	Glu	Leu	Val	Val	Met	Gly	Asp	His	Asp
		115					120					125			
Ala	Ala	Arg	Arg	Lys	Thr	Glu	11e	Pro	Phe	Asp	Leu	Gly	Asn	Lys	He
	130					135					140				
Thr	lle	Ser	Thr	Asp	Ala	Phe	Glu	Asp	Thr	Val	Thr	Пе	Pro	Ser	Pro
145					150					155					160
Pro	Thr	Asn	Val	His	Ala	Ser	Glu	Пe	Arg	Glu	Ala	Tyr	Val	Val	Leu
				165					170					175	
Ala	Trp	Glu	Glu	Pro	Ser	Pro	Arg	Gly	Arg	Ala	Pro	Leu	Thr	Tyr	Ser
			180					185					190		
Leu	Glu	Lys	Ser	Val	He	Gly	Ser	Gly	Thr	Trp	Glu	Ala	lle	Ser	Ser
		195					200					205			
Glu	Ser	Pro	Val	Arg	Ser	Pro	Arg	Phe	Ala	Val	Leu	Asp	Leu	G1u	Lys
	210					215					220				
	Lys	Ser	Tyr	Va]	Phe	Arg	Val	Arg	Ala		Asn	Gln	Tyr	Gly	Leu
225					230					235					240
Ser	Asp	Pro	Ser		Pro	Ser	Glu	Pro		Ala	Leu	Arg	G1 y		Pro
	an)		•	245					250					255	,
Ala	Thr	Leu		Pro	Pro	Ala	GIn		G1n	Ala	Phe	Arg		Thr	Gln
T)	C	37 3	260		T)	T		265					270		
Ihr	Ser		Ser	Leu	Thr	Trp		Pro	Val	Lys	Asp		Glu	Leu	l.eu
C1	т	275 T	1.1	т	C		280	V: 1	C1	TI	C	285	T	0.1	T)
61 y		lyr	116	Lyr	Ser		Lys	val	61 y	Inr		Glu	Trp	GIn	lhr
V., I	290	Aan	Lua	Dwa	11	295	C1	T)	Λ	Т	300	C	D	D	V - 1
	ASII	ASII	Lys	110	11e	OIB	OTV	Inr	Arg		vai	Cys	Pro	Pro	
305 Ser	Val	Cve	Sor	Hic	310 Thr	Ala	11.	Lva	The	315	Lou	Ara	Lau	C1	320
JC1	, cl 1	Cys	JUL	325	1 111	ліа	116	riz	330	1 y 1	Leu	ив	Leu	335	
Phe	Phe	Tyr	Lve		lve	Ara	Pho	Aen		Lou	Thr	Val	Lou		

340 345 Ile Gln Ala Ser Phe Ser Gly Glu Ala Ser Gly Asn Leu 360 355 <210> 3852 <211> 566 <212> PRT <213> Homo sapiens <400> 3852 Met Ala Met Gly Arg Gly Glu Gly Leu Val Gly Asp Gly Pro Val Asp 5 10 Met Arg Thr Ser His Ser Asp Met Lys Ser Glu Arg Arg Pro Pro Ser 20 25 Pro Asp Val lle Val Leu Ser Asp Asn Glu Gln Pro Ser Ser Pro Arg 40 Val Asn Gly Leu Thr Thr Val Ala Leu Lys Glu Thr Ser Thr Glu Ala 55 Leu Met Lys Ser Ser Pro Glu Glu Arg Glu Arg Met 11e Lys Gln Leu 70 75 65 Lys Glu Glu Leu Arg Leu Glu Glu Ala Lys Leu Val Leu Leu Lys Lys 85 90 Leu Arg Gln Ser Gln 11e Gln Lys Glu Ala Thr Ala Gln Lys Pro Thr 100 Gly Ser Val Gly Ser Thr Val Thr Thr Pro Pro Pro Leu Val Arg Gly 120 Thr Gln Asn lle Pro Ala Gly Lys Pro Ser Leu Gln Thr Ser Ser Ala 135 140 Arg Met Pro Gly Ser Val lle Pro Pro Pro Leu Val Arg Gly Gly Gln 155145 150 Gln Ala Ser Ser Lys Leu Gly Pro Gln Ala Ser Ser Gln Val Val Met 165 170 Pro Pro Leu Val Arg Gly Ala Gln Gln lle His Ser lle Arg Gln His

185

Ser Ser Thr Gly Pro Pro Pro Léu Leu Leu Ala Pro Arg Ala Ser Val

180

190

		195					200					205			
Pro	Ser	Val	Gln	lle	Gln	Gly	Gln	Arg	Пе	Пе	Gln	Gln	Gly	Leu	Πle
	210					215					220				
Arg	Val	Ala	Asn	Val	Pro	Asn	Thr	Ser	Leu	Leu	Va]	Asn	He	Pro	Gln
225					230					235					240
Pro	Thr	Pro	Ala	Ser	Leu	Lys	Gly	Thr	Thr	Ala	Thr	Ser	Ala	Gln	Ala
				245					250					255	
Asn	Ser	Thr	Pro	Thr	Ser	Val	Ala	Ser	Val	Val	Thr	Ser	Ala	Glu	Ser
			260					265					270		
Pro	Ala	Ser	Arg	Gln	Ala	Ala	Ala	Lys	Leu	Ala	Leu	Arg	Lys	Gln	Leu
		275					280					285			
Glu	Lys	Thr	Leu	Leu	Glu	He	Pro	Pro	Pro	Lys	Pro	Pro	Ala	Pro	Glu
	290					295					300				
Met	Asn	Phe	Leu	Pro	Ser	Ala	Ala	Asn	Asn	Glu	Phe	Пе	Tyr	Leu	Vall
305					310					315					320
Gly	Leu	Glu	Glu	Val	Val	Gln	Asn	Leu	Leu	Glu	Thr	Gln	Ala	Gly	Arg
				325					330					335	
Met	Ser	Ala		Thr	Val	Leu	Ser	Arg	Glu	Pro	Tyr	Met	Cys	Ala	G1n
			340					345					350		
Cys	Lys		Asp	Phe	Thr	Cys		Trp	Arg	Glu	Glu	Lys	Ser	Gly	Ala
		355					360					365			
He		Cys	Glu	Asn	Cys		Thr	Thr	Asn	Gln		Lys	Ala	Leu	Lys
	370		m)			375					380				
	61u	His	lhr	Ser		Leu	Lys	Ala	Ala		Val	Lys	Ala	Leu	
385	C1	C1	C1	11	390	C1			,	395	0.1	6.1	TC)		400
GIN	GIU	GIN	Glu		6] u	Gin	Arg	Leu				Gly	Thr		Pro
Ala	Cla	110	Lua	405	C1	D	ть	A 1 -		D		n.	17 3	415	
МТа	GIN	ATA	420	АТа	GIU	rro	inr	A1a	ATA	Pro	H1S	Pro	Val	Leu	Lys
Cla	Va.1	116		Dec	A 12.07	A 12 cr	Lua		A 1	DL.	A	c	430	C1	a 1
OIII	val	435	rys	110	Ai g	AI g	440	Leu	мта	rne	Arg	5er 445	Gly	GJU	ATa
Ara	Aen		Sor	Acn	Clv	Ala		Lou	Cln	Ala	Sam		G]n	Lau	C
.ug	450	11b	oer.	АЗП	GTY	455	vai	Leu	OIII	AId	460	961	UH	Leu	261
Arø		Ser	Ala	Thr	Thr		Arø	Glv	Val	Len		Thr	Phe	Sor	Pro
465	~ . J		0		470	110	, ia &	Ory	, a i	475	1113	1111	1 HC	961	480
	Pro	Lvs	Leu	Gln		Ser	Ala	Ser	Ala		Ala	Leu	Val	Ser	

Thr Gly Arg His Ser Glu Arg Thr Val Ser Ala Gly Lys Gly Ser Ala Thr Ser Asn Trp Lys Lys Thr Pro Leu Ser Thr Gly Gly Thr Leu Ala Phe Val Ser Pro Ser Leu Ala Val His Lys Ser Ser Ser Ala Val Asp Arg Gln Arg Glu Tyr Leu Leu Asp Met 11e Pro Pro Arg Ser 11e Pro Gln Ser Ala Thr Trp Lys

<210> 3853

<211> 357

<212> PRT

<213> Homo sapiens

<400> 3853

Met His Trp Leu Ala Ser Ala Thr Gln Thr Ser Ala Ser Ile Val Ser Ser Ser Leu Leu Ser Ala Val Asp Val Ser Ser Ser Leu Thr Met Ser Glu Tyr Phe Gln Asn Thr Ser Leu Pro Gly Thr Ala Asn Ser Arg Gln Phe Ser Leu Pro Val Val Ser Asn Ala Ala Phe Leu Thr Gly Ser Ile Ser Asn Phe Ser Arg Ala Ser Ala Pro Ala Ile Ser Ser Ala Trp Leu Gln Pro Ser Ala Ser Gly Thr Ser Phe Gln Pro Leu Met Gly Ser Ala Tyr Leu Tyr Gln His Ser Ser Thr Thr Met Leu Ser Gly Val Thr Gly Gln Ser His 11e Cys Thr Ser Ala Ala Ser Tyr Pro Gly Val Phe Glu

Trp Asp Ser Thr Ala Ser Thr Val Lys Lys Ser Ser Ser Leu Arg Asp

	130					135					140				
Phe	Thr	Val	Thr	Val	He	Asp	Gln	Asn	Thr	Ala	Val	Ser	Ser	Met	Ser
145					150					155					160
Met	Thr	Ala	Gln	Tyr	Tyr	Lys	Thr	Ser	Asp	Thr	Asn	Thr	Met	Va]	Pro
				165					170					175	
Leu	Tyr	Pro	Ser	Leu	Ser	Ala	Ser	Leu	Val	Gln	Gly	Thr	Leu	Thr	Gln
			180					185					190		
He	Pro	Asn	Gln	Gln	Gly	His	Asn	Leu	Ser	Leu	Pro	Cys	Gln	Пе	G1 y
		195					200					205			
Ser	Gln	Val	Tyr	Tyr	Tyr	Asn	Gln	G] y	Thr	Leu	Gly	Pro	Gln	Leu	Ser
	210					215					220				
Cys	Leu	Gln	Ser	Tyr	Gly	Ser	Val	Ser	Tyr	Thr	Gly	Tyr	Arg	Ala	Ser
225		•			230					235					240
Ala	His	GIn	Pro	Glu	Met	Val	Met	Val	Leu	Lys	Glu	Val	Gln	Pro	Thr
				245					250					255	
Asn	Val	Leu	Pro	Pro	Va]	Ser	Thr	Ser	Gly	Met	Tyr	Tyr	Ser	Val	Ser
			260					265					270		
Ser	Gln	Pro	He	Thr	Glu	Thr	Ser	Val	Gln	Val	Met	Glu	Thr	Ser	Leu
		275					280					285			
Gly	Met	Asp	Thr	Ser	Leu	Gly	Leu	Gln	Ser	Pro	Ser	Gln	Thr	Phe	Cys
	290					295					300				
Leu	Pro	Gln	Thr	Pro	Glu	Phe	Ser	Lys	Ser	Phe	Ser	Ser	Arg	Asn	Thr
305					310					315					320
Gln	Thr	Leu	Glu	Ser	Asn	Pro	Ser	Pro	Glu	Leu	Gly	Asp	He	Ser	Пе
				325					330					335	
Thr	Pro	Val	Gln	Ser	Pro	Thr	Asn	Leu	Leu	Thr	Leu	Ser	Pro	Ala	Pro
			340					345					350		
Ser	Gln	Glu 355	Lys	Lys											

<211> 123

<212> PRT

<213> Homo sapiens

<400> 3854 Met Gln Gly Gly Glu Ala Glu Gly Gly Trp Gly Leu Glu Ser Gly Leu 1 10 Ser Pro Arg Pro Leu Leu Gln Ala Gly Asp Leu Gly Gln Val Ser Ser 25 Pro Leu Cys Gly Ala Gly Gly Ala Phe Ser Arg Leu Glv Glv Ser Ser 45 Gly Thr Gly Pro Glu Thr Gly Asp Leu Leu Ser Pro Ser Leu Ser His Ser Leu His Leu Ser Pro Arg Leu Thr Pro Thr His Ser Ile Ser His 70 75 Ser Leu Ser Phe Ser His Arg Leu Thr Pro Cys Leu Ile Cys Ser Leu 85 90 Thr His Ser Phe Leu Ser Pro Ser Leu Ser Leu Cys Leu Ser Leu Pro 100 105 110 Leu Arg Leu Val His Thr Leu Thr Asn Gly Ala 115 120

<210> 3855

<211> 906

<212> PRT

<213> Homo sapiens

<400> 3855

Met Ser Ala Thr lle Ser Cys Lys Glu Phe Ala Asp Tyr Phe Ala Val 1 5 10 15

Pro Val Gln Asn Lys Met Asn Pro Ala Tyr lle Phe Glu Val Glu Gly
20 25 30

Lys Pro His Ser Val Glu Glu Tyr Tyr Leu Asn Asp Leu Glu His 11e 35 40 45

His His Ser Lys Leu Ser Pro His Leu Leu Glu Glu Pro Val 11e Thr
50 55 60

Lys Asp IIe Tyr Glu Val Ala Val Ser Leu IIe Gln Met Phe Asp Asp 65 70 75 80

Leu	Asp	Met	Lys	Glu	Ser	Gly	Asn	Lys	Ala	Trp	Ser	Gly	Ala	Gln	Phe
				85					90					95	
Val	Leu	Glu	Arg	Ser	Ser	Val	Leu	Val	Phe	Leu	Pro	Gly	Leu	Gly	Glu
			100					105					110		
He	Asn	Tyr	Met	His	Glu	Leu	Leu	Thr	Ser	Leu	Val	His	Lys	Arg	Leu
		115					120					125			
Gln	Val	Tyr	Pro	Leu	His	Ser	Ser	Val	Ala	Leu	Glu	Glu	Gln	Asn	Asn
	130					135					140				
Val	Phe	Leu	Ser	Pro	Val	Pro	Gly	Tyr	Arg	Lys	He	He	Leu	Ser	Thr
145					150					155					160
Asn	11e	Ala	Glu	Ser	Ser	Val	Thr	Val	Pro	Asp	Val	Lys	Tyr	Val	He
				165					170					175	
Asp	Phe	Cys	Leu	Thr	Arg	Thr	Leu	Val	Cys	Asp	Glu	Asp	Thr	Asn	Tyr
			180					185					190		
Gln	Ser		Arg	Leu	Ser	Trp		Ser	Lys	Thr	Ser		Asn	Gln	Arg
		195					200					205			
Lys		Arg	Ala	Gly	Arg	Val	Ser	Arg	Gly	Tyr		Tyr	Arg	Leu	Val
	210					215					220				
	Lys	Asp	Phe	Trp		Asn	Ser	He	Pro		His	Va1	Val	Pro	
225				_	230					235					240
Met	Leu	Arg	Cys		Leu	Gly	Ser	Thr		Leu	Lys	Val	Lys		Leu
		6.1		245					250	an.			0	255	
Asp	Met	Gly		Pro	Arg	Ala	Leu		Ala	Ihr	Ala	Leu		Pro	Pro
C.1	,	C	260		61		TI	265			,		270	V. 1	C 1
Gly	Leu		Asp	116	Glu	Arg		11e	Leu	Leu	Leu		Glu	vai	Gly
A 3 -	1	275	V - 1	C	C1	C1	280	C1	Λ	C1	Λ	285 December 2	111	Λ	C1
Ala		ATa	vai	ser	61 y	Gln	Arg	GIU	Asp	GJU		Pro	HIS	ASP	GIY
C1	290 Law	The	Dho	Lou	Cly	295	Vo.1	Lon	Λlα	Cla	300	Dro	Vol	Acn	Cln
	Leu	1111	rne	Leu	310	Arg	vai	Leu	мта	315	Leu		vaj	ASII	320
305	Lan	Cly	lva	Lou		Vol.	Lau	Cly	u; c		Dho	Cl _v	Cvc	Lou	
GIII	Leu	01 À	Lys		116	Val	Leu	01 À		vai	rne	Oly	CYS		Asp
C1	C=	Love	11.	325	A1-	۸1.	۸۱۰	Lav	330	Lau	1	Acr	Dh.c	335	Αla
OIU	CyS	Leu	340	116	ита	Ala	ига		ser	reu	LyS	ASH	350	1 116	лта
Mot	Dro	Dho		C1.5	Hi c	Lou	Acr	345	Tyr	Ana	Acr	Lvc		Acr	Dha

•		355					360					365			
Ser	Gly	Ser	Ser	Lys	Ser	Asp	Cys	He	Ala	Leu	Val	Glu	Ala	Phe	Lys
	370					375					380				
Thr	Trp	Lys	Ala	Cys	Arg	Gln	Thr	Gly	Glu	Leu	Arg	Tyr	Pro	Lys	Asp
385					390					395					400
Glu	Leu	Asn	Trp	Gly	Arg	Leu	Asn	Tyr	Пе	Gln	He	Lys	Arg	Пе	Arg
				405					410					415	
Glu	Val	Ala	Glu	Leu	Tyr	Glu	Glu	Leu	Lys	Thr	Arg	He	Ser	Gln	Phe
			420					425					430		
Asn	Met	His	Val	Asp	Ser	Arg	Arg	Pro	Val	Met	Asp	Gln	Glu	Tyr	lle
		435					440					445			
Tyr	Lys	Gln	Arg	Phe	He	Leu	Gln	Val	Val	Leu	Ala	Gly	Ala	Phe	Tyr
	450					455					460				
Pro	Asn	Tyr	Phe	Thr	Phe	Gly	Gln	Pro	Asp	Glu	Glu	Met	Ala	Val	Arg
465					470					475					480
Glu	Leu	Ala	Gly	Lys	Asp	Pro	Lys	Thr	Thr	Val	Val	Leu	Lys	His	He
				485					490					495	
Pro	Pro	Tyr	Gly	Phe	Leu	Tyr	Tyr	Lys	Gln	Leu	Gln	Ser	Leu	Phe	Arg
			500					505					510		
Gln	Cys	Gly	Gln	Va1	Lys	Ser	He	Val	Phe	Asp	G1 y	Ala	Lys	Ala	Phe
		515					520					525			
Val	Glu	Phe	Ser	Arg	Asn	Pro	Thr	Glu	Arg	Phe	Lys	Thr	Leu	Pro	Ala
	530					535					540				
Val	Tyr	Met	Ala	He	Lys	Met	Ser	Gln	Leu	Lys	Val	Ser	Leu	Glu	Leu
545					550					555					560
Ser	Val	His	Ser	Ala	Glu	Glu	He	Glu	Gly	Lys	Val	Gln	61y	Met	Asn
				565					570					575	
Val	Ser	Lys	Leu	Arg	Asn	Thr	Arg	Val	Asn	Val	Asp	Phe	Gln	Lys	Gln
			580					585					590		
Thr	Va]	Asp	Pro	Met	Gln	Val	Ser	Phe	Asn	Thr	Ser	Asp	Arg	Ser	Gln
		595					600					605			
Thr	Val	Thr	Asp	Leu	Leu	Leu	Thr	lle	Asp	Val	Thr	Glu	Val	Val	Glu
	610					615					620				
Val	Gly	His	Phe	Trp	Gly	Tyr	Arg	He	Asp	Glu	Asn	Asn	Ser	Glu	11e
625					630					635					640
Leu	Lvs	Lvs	Leu	Thr	Ala	Glu	He	Asn	G1n	Leu	Thr	Leu	Val	Pro	Leu

				645					650					655	
Pro	Thr	His	Pro	His	Pro	Asp	Leu	Val	Cys	Leu	Ala	Pro	Phe	Ala	Asp
			660					665					670		
Phe	Asp	Lys	Gln	Arg	Tyr	Phe	Arg	Λla	Gln	Val	Leu	Tyr	Val	Ser	Gly
		675					680					685			
Asn	Ser	Ala	Glu	Val	Phe	Phe	Val	Asp	Tyr	Gly	Asn	Lys	Ser	His	Val
	690					695					700				
Asp	Leu	His	Leu	Leu	Met	Glu	Пe	Pro	Cys	Gln	Phe	Leu	Glu	Leu	Pro
705					710					715					720
Phe	G1n	Ala	Leu	Glu	Phe	Lys	He	Cys	Lys	Met	Arg	Pro	Ser	Лlа	Lys
				725					730					735	
Ser	Leu	Val	Cys	Gly	Lys	His	Trp	Ser	Asp	Gly	Ala	Ser	Gln	Trp	Phe
			740					745					750		
Ala	Ser	Leu	Val	Ser	Gly	Cys	Thr	Leu	Leu	Val	Lys	Val	Phe	Ser	Val
		755					760					765			
Val	His	Ser	Val	Leu	His	Va]	Asp	Val	Tyr	Gln	Tyr	Ser	Gl y	Val	Gln
	770					775					780				
Asp	Ala	Ile	Asn	lle	Arg	Asp	Val	Leu	He	Gln	Gln	Gly	Tyr	Ala	Glu
785					790					795					800
Leu	Thr	Glu	Glu	Ser	Tyr	Glu	Ser	Lys	Val	Asn	He	Leu	Arg	Ala	Ala
				805					810					815	
He	Asn	Lys	Leu	Val	Cys	Asp	Gly	Pro	Asn	Gly	Cys	Lys	Cys	Leu	Gly
			820					825					830		
Pro	Glu	Arg	Val	Ala	Gln	Leu	Gln	Asp	He	Ala	Arg	Gln	Lys	Leu	Leu
		835					840					845			
Gly	Leu	Phe	Cys	Gln	Ser	Lys	Pro	Arg	Glu	Lys	lle	Val	Pro	Lys	Trp
	850					855					860				
His	Glu	Lys	Pro	Tyr	Glu	Trp	Asn	Gln	Val	Asp	Pro	Lys	Leu	Val	Met
865					870					875					880
Glu	Gln	Ala	Asp	Arg	Glu	Ser	Ser	Arg	Gly	Lys	Asn	Thr	Phe	Leu	Tyr
				885					890					895	
Gln	Leu	His	Lys	Leu	Val	Va]	Leu	Gly	Thr						
			900					905							

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<211> 738
<212> PRT
<213> Homo sapiens
<400> 3856
Met Leu Lys Trp Ile Ser Trp Arg Gln Ser Lys Ala Asn Lys Ala Gln
                                     10
Leu Ser Gly Gly Cys Glu Leu Thr Val Val Leu Gln Asp Phe Ser Ala
                                 25
Gly His Ser Ser Glu Leu Thr Ile Gln Val Gly Gln Thr Val Glu Leu
         35
Leu Glu Arg Pro Ser Glu Arg Pro Gly Trp Cys Leu Val Arg Thr Thr
                         55
                                             60
Glu Arg Ser Pro Pro Leu Glu Gly Leu Val Pro Ser Ser Ala Leu Cys
                     70
                                          75
65
Ile Ser His Ser Arg Ser Ser Val Glu Met Asp Cys Phe Phe Pro Leu
                 85
                                      90
Val Lys Asp Ala Tyr Ser His Ser Ser Ser Glu Asn Gly Gly Lys Ser
                                105
Glu Ser Val Ala Asn Leu Gln Ala Gln Pro Ser Leu Asn Ser Ile His
        115
                            120
Ser Ser Pro Gly Pro Lys Arg Ser Thr Asn Thr Leu Lys Lys Trp Leu
                        135
                                             140
Thr Ser Pro Val Arg Arg Leu Asn Ser Gly Lys Ala Asp Gly Asn Ile
                                                             160
145
                    150
                                         155
Lys Lys Gln Lys Lys Val Arg Asp Gly Arg Lys Ser Phe Asp Leu Gly
                165
                                     170
Ser Pro Lys Pro Gly Asp Glu Thr Thr Pro Gln Gly Asp Ser Ala Asp
                                                     190
                                185
Glu Lys Ser Lys Lys Gly Trp Gly Glu Asp Glu Pro Asp Glu Glu Ser
                                                 205
        195
                            200
His Thr Pro Leu Pro Pro Pro Met Lys Ile Phe Asp Asn Asp Pro Thr
                                             220
                        215
Gln Asp Glu Met Ser Leu Glu Gly Ser Ser Tyr Arg Gly Ser Leu Lys
225
                    230
                                         235
                                                             240
```

Asp Pro Ala Gly Cys Leu Asn Glu Gly Met Ala Pro Pro Thr Pro Pro

				245					250					255	
Lys	Asn	Pro	Glu	Glu	Glu	Gln	Lys	Ala	Lys	Ala	Leu	Arg	G1y	Arg	Met
			260					265					270		
Phe	Val	Leu	Asn	Glu	Leu	Val	Gln	Thr	Glu	Lys	Asp	Tyr	Val	Lys	Asp
		275					280					285			
Leu	Gly	He	Val	Val	Glu	Gly	Phe	Met	Lys	Arg	Пе	Glu	Glu	Lys	Gly
	290					295					300				
Val	Pro	Glu	Asp	Met	Arg	Gly	Lys	Asp	Lys	He	Val	Phe	Gly	Asn	He
305					310					315					320
His	Gln	He	Tyr	Asp	Trp	His	Lys	Asp	Phe	Phe	Leu	Ala	Glu	Leu	Glu
				325					330					335	
Lys	Cys	He	Gln	Glu	Gln	Asp	Arg	Leu	Ala	Gln	Leu	Phe	He	Lys	His
			340					345					350		
Glu	Arg	Lys	Leu	His	He	Tyr	Val	Trp	Tyr	Cys	Gln	Asn	Lys	Pro	Arg
		355					360					365			
Ser	Glu	Tyr	lle	Val	Ala	Glu	Tyr	Asp	Ala	Tyr	Phe	Glu	Glu	Va]	Lys
	370					375					380				
Gln	Glu	Ile	Asn	Gln	Arg	Leu	Thr	Leu	Ser	Asp	Phe	Leu	Ile	Lys	Pro
385					390					395					400
Пе	Gln	Arg	He	Thr	Lys	Tyr	Gln	Leu	Leu	Leu	Lys	Asp	Phe	Leu	Arg
,				405					410					415	
Tyr	Ser	Glu	Lys	Ala	Gly	Leu	Glu	Cys	Ser	Asp	Пе	Glu	Lys	Ala	Val
			420					425					430		
Glu	Leu	Met	Cys	Leu	Val	Pro	Lys	Arg	Çys	Asn	Asp	Met	Met	Asn	Leu
		435					440					445			
Gly	Arg	Leu	Gln	Gly	Phe	Glu	Gly	Thr	Leu	Thr	Ala	Gln	Gly	Lys	Leu
	450					455					460				
Leu	Gln	Gln	Asp	Thr	Phe	Tyr	Val	11e	Glu	Leu	Asp	Ala	Gly	Met	Gln
465					470					475			•		480
Ser	Arg	Thr	Lys	Glu	Arg	Arg	Val	Phe	Leu	Phe	Glu	Gln	11e	Val	lle
				485					490					495	
Phe	Ser	Glu	Leu	Leu	Arg	Lys	Gly	Ser	Leu	Thr	Pro	Gly	Tyr	Met	Phe
			500					505					510		
Lys	Arg	Ser	lle	Lys	Met	Asn	Tyr	Leu	Val	Leu	Glu	Glu	Asn	Val	Asp
		515					520					525			

	530					535					540				
Val	Val	Leu	Gln	Ala	Ala	Asn	Ala	Лѕр	Пе	Gln	Gln	Ala	Trp	Val	Gln
545					550					555					560
Asp	He	Asn	Gln	Val	Leu	Glu	Thr	Gln	Arg	Asp	Phe	Leu	Asn	Ala	Leu
				565					570					575	
Gln	Ser	Pro	He	Glu	Tyr	Gln	Arg	Lys	Glu	Arg	Ser	Thr	Ala	Val	Met
			580					585					590		
Arg	Ser	G1n	Pro	Ala	Arg	Leu	Pro	Gln	Ala	Ser	Pro	Arg	Pro	Tyr	Ser
		595					600					605			
Ser	Val	Pro	Ala	Gly	Ser	Glu	Lys	Pro	Pro	Lys	Gly	Ser	Ser	Tyr	Asn
	610					615					620				
Pro	Pro	Leu	Pro	Pro	Leu	Lys	He	Ser	Thr	Ser	Asn	Gly	Ser	Pro	Gly
625					630					635					640
Phe	Glu	Tyr	His	GIn	Pro	Gly	Asp	Lys	Phe	Glu	Ala	Ser	Lys	Asn	Asp
				645					650					655	
Leu	Gly	Gly	Cys	Asn	G]y	Thr	Ser	Ser	Met	Ala	Val	He	Lys	Asp	Tyr
			660	•				665					670		
Tyr	Ala	Leu	Lys	Glu	Asn	Glu	He	Cys	Val	Ser	Gln	Gly	Glu	Val	Val
-		675					680					685			
Gln	Val	Leu	Ala	Val	Asn	Gln	Gln	Asn	Met	Cys	Leu	Val	Tyr	Gln	Pro
	690					695					700				
Ala	Ser	Asp	His	Ser	Pro	Ala	Ala	Glu	Gly	Trp	Val	Pro	Gly	Ser	He
705					710					715					720
Leu	Ala	Pro	Leu	Thr	Lys	Ala	Thr	Ala	Ala	G] u	Ser	Ser	Asp	Gly	Ser
				725					730					735	
He	Lys														

<211> 114

<212> PRT

<213> Homo sapiens

<400> 3857

Met Lys Pro Ser Val Thr Val Leu Phe Pro Thr Phe Gln Leu Met Phe

10 His Val Asp Asn Gly Ala Gly Arg Phe Thr Ala Val Tyr Asp Ala Gly 25 Val Pro Gly His Leu Cys Asp Gly Gln Trp His Lys Val Thr Ala Asn 35 45 Lys Ile Lys His Arg Ile Glu Leu Thr Val Asp Gly Asn Gln Val Glu 55 Ala Gln Ser Pro Asn Pro Ala Ser Thr Ser Ala Asp Thr Asn Asp Pro 70 75 Val Phe Val Gly Gly Phe Pro Gly Glu Cys Trp Leu Pro Gln Gln Gln 90 Phe Leu Cys Ser Leu Met Leu Leu Val Leu Lys Thr Phe 11e Phe Thr 100 110 105 Cys Val

<210> 3858

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3858

Met Ser Ala Leu Val Cys Leu Leu Pro Leu Cys Leu Gln Pro Ile Ser l 5 10 15 Val Leu Phe Leu Asp His Phe Ser Arg Glu Thr Val Pro Lys Thr Pro 25 lle Pro Ser Val Cys Thr Cys Ser Gln Ser Ile Ser Leu Ser Ile Ser 40 45 Val Cys Cys Tyr Cys Ser Arg Gly Val Ser Leu Ser Val Pro Ala Ser 50 55 60 His Ala Cys Leu Pro Val Ser Pro Ala Leu Val His Ala Ala His Ile 70 75 Arg Thr Leu Val Thr Pro Pro Phe Ser Leu Gln Pro His Leu Pro Ser 85 90

Gly lle Phe lle Ser Val Pro Pro Ala His Ala Asn Leu His Leu Leu

Leu Tyr Pro Ala Pro Leu Pro Val Ser Val Pro Gly Val Pro Leu Cys 115 120 125 125 His Ala Ala Val Ala Ser Glu Leu Pro Phe Cys Leu Asp Pro Leu 130 135 140

<210> 3859

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3859

Met Gln Asp Pro Glu Gly Ser Lys Glu Ser Thr Val Arg Arg Lys Ser

1 5 10 15

Thr Val Arg Gln Leu Ser Phe Arg Asp Val Val Leu Arg Cys Arg Pro 20 25 30

His Pro Gln Val His Pro Gly Ser Gln Pro Ser Glu Gly Thr Met Glu 35 40 45

Ile Gln Leu Leu Thr Leu Gly Ser Arg Arg Ile Pro Asp His Ser Cys
50 55 60

Val His Pro Gly Arg Glu Pro Ser Glu Gly Thr Val Glu He Gln Leu 65 70 75 80

Leu Thr Leu Ala Ser Ile Arg Ile Pro Asp Ser Ser Gly Ser Gln Thr
85 90 95

Ser Asp Asn Ser Lys IIe Ala Thr Leu Tyr Ser Ser Leu Phe His Val 100 105 110

Cys Gln Phe Lys Cys Thr Ser Gln Ser Leu Val Leu Gln Met Gln Lys 115 120 125

<210> 3860

<211> 694

<212> PRT

<213> Homo sapiens

<400)> 38	360													
Met	Asp	Leu	His	Lys	Gln	Trp	Glu	Asn	Thr	Glu	Thr	Asn	Trp	His	Lys
1				5					10					15	
Glu	Lys	Met	Glu	Leu	Leu	Asp	Gln	Phe	Asp	Asn	Glu	Arg	Lys	Glu	Trp
			20					25					30		
Glu	Ser	Gln	Trp	Lys	He	Met	Gln	Lys	Lys	Пe	Glu	Glu	Leu	Cys	Arg
		35					40					45			
Glu	Val	Lys	Leu	Trp	Arg	Lys	Пе	Asn	Ile	Λsn	Glu	Ser	Ala	Lys	He
	50					55					60				
He	Asp	Leu	Tyr	His	Glu	Lys	Thr	He	Pro	Glu	Lys	Val	Ile	Glu	Ser
65					70					75					80
Ser	Pro	Asn	Tyr	Pro	Asp	Leu	G1 y	Gln	Ser	Glu	Phe	lle	Arg	Thr	Asn
				85					90					95	
His	Lys	Asp	Gly	Leu	Arg	Lys	G] u	Asn	Lys	Arg	Glu	Gln	Ser	Leu	Val
			100					105					110		
Ser	Gly		Asn	Gln	Met	Cys	Lys	Glu	Gln	Lys	Ala	Thr	Lys	Lys	Ser
		115					120					125			
Lys		Gly	Phe	Leu	Asp		Leu	Ala	Thr	Asp		Gln	Lys	Glu	Cys
	130		_			135					140			_	
	Ala	Trp	Pro	Asp		Arg	Thr	Ser	Glu		Asp	Ser	Lys	Ser	
145	6.1				150		•	0.1	0.1	155	. 7	,	., ,	_	160
Ser	Gly	Ala	Leu		Ihr	Ala	Leu	Glu		Leu	Ala	Lys	Val		Glu
C.1		<i>C</i>	C	165	C.1	<i>(</i> 1)	C.1		170	,		C		175	
Glu	Leu	Uys		Phe	GIn	GJU	Glu		Arg	Lys	Arg	Ser		HIS	Arg
	14 .	1	180		C	rsi.	,	185	C1	14 .	D.	Δ.	190	TI	
Arg	меι		Ser	Asp	Ser.	rne	Leu				Pro		vai	Inr	Asn
т1	D	195	C1	Λ	D	Mad		Δ			C1	205	11.	1	D
He		mrs	61 Å	ASP	PTO		He	ASII	ASI	ASP		Cys	116	Leu	Pro
Ha	210	Lan	Clu	Luc	C1	215	Cla	Lus	Acres	Amar	220	Aon	Lou	Con	Cva
225	ser	Leu	Olu	Lys	230	rys	Gln	LYS	ASII	235	Lys	ASII	Leu	261	240
	Acn	Val	Lau	Cln		Aen	Ser	The	Lve		Cve	Glv	Ho	Acn	
1111	лы	101	Leu	245	261	лън	361	1111	250	rìs	Cys	Oly	110	255	1 111
Ho	Aen	1 ຄບ	lve		Acn	Glu	Thr	Pro		Val	Pro	Pro	Pro		Sar
110	nap	Lcu	260	ni g	11011	v, j, u	1 111	265	110	, 01	110	. 10	270	ыв	061
			200					200					210		

Thr Ser Arg Asn Phe Pro Ser Ser Asp Ser Glu Gln Ala Tyr	Glu Arg
275 280 285	
Trp Lys Glu Arg Leu Asp His Asn Ser Trp Val Pro His Glu	Gly Arg
290 295 300	
Ser Lys Arg Asn Tyr Asn Pro His Phe Pro Leu Arg Gln Gln	Glu Met
305 310 315	320
Ser Met Leu Tyr Pro Asn Glu Gly Lys Thr Ser Lys Asp Gly	Ile Ile
·	335
Phe Ser Ser Leu Val Pro Glu Val Lys lle Asp Ser Lys Pro	Pro Ser
340 345 350	
Asn Glu Asp Val Gly Leu Ser Met Trp Ser Cys Asp Ile Gly	lle Gly
355 360 365	C T1
Ala Lys Arg Ser Pro Ser Thr Ser Trp Phe Gln Lys Thr Cys	Ser Inr
370 375 380	Al., L.,
Pro Ser Asn Pro Lys Tyr Glu Met Val He Pro Asp His Pro 385 390 395	400
Ser His Pro Asp Leu His Val Ser Asn Asp Cys Ser Ser Ser	
	415
Glu Ser Ser Ser Pro Leu Arg Asn Phe Ser Cys Gly Phe Glu	
420 425 430	C
Thr Arg Asn Glu Lys Leu Ala Ala Lys Thr Asp Glu Phe Asn	Arg Thr
435 440 445	
Val Phe Arg Thr Asp Arg Asn Cys Gln Ala Ile Gln Gln Asn	His Ser
450 455 460	
Cys Ser Lys Ser Ser Glu Asp Leu Lys Pro Cys Asp Thr Ser	Ser Thr
465 470 475	480
His Thr Gly Ser lle Ser Gln Ser Asn Asp Val Ser Gly lle	Trp Lys
485 490	495
Thr Asn Ala His Met Pro Val Pro Met Glu Asn Val Pro Asp	Asn Pro
500 505 510	
Thr Lys Lys Ser Thr Thr Gly Leu Val Arg Gln Met Gln Gly	His Leu
515 520 525	A 15
Ser Pro Arg Ser Tyr Arg Asn Met Leu His Glu His Asp Trp	Arg Pro
530 535 540 Sor Asp Lou Sor Cly Arg Pro Arg Sor Ala Asp Pro Arg Sor	Acn Tur
Ser Asn Leu Ser Gly Arg Pro Arg Ser Ala Asp Pro Arg Ser 545 550 555	560
- OFF OFF OFF OFF OFF OFF OFF OFF OFF OF	500

Gly Val Val Glu Lys Leu Leu Lys Thr Tyr Glu Thr Ala Thr Glu Ser 570 Ala Leu Gln Asn Ser Lys Cys Phe Gln Asp Asn Trp Thr Lys Cys Asn 580 585 590 Ser Asp Val Ser Gly Gly Ala Thr Leu Ser Gln His Leu Glu Met Leu 600 605 Gln Met Glu Gln Gln Phe Gln Gln Lys Thr Ala Val Trp Gly Gly Gln 615 620 Glu Val Lys Gln Gly 11e Asp Pro Lys Lys 11e Thr Glu Glu Ser Met 625 630 635 640 Ser Val Asn Ala Ser His Gly Lys Gly Phe Ser Arg Pro Ala Arg Pro 645 650 655 Ala Asn Arg Arg Leu Pro Ser Arg Trp Ala Ser Arg Ser Pro Ser Ala 665 670 Pro Pro Ala Leu Arg Arg Thr Thr His Asn Tyr Thr Ile Ser Leu Arg 675 680 685 Ser Glu Ala Leu Met Val 690

<210> 3861

<211> 1082

<212> PRT

<213> Homo sapiens

<400> 3861

Met Asp Thr Ser Ser Ser Ala His Pro His Leu Pro Ser Leu Lys Ala 1 5 10 15

Glu Glu Ser Gln Met Lys Thr Gln Val lle Thr His Arg Glu Asn Ser 20 25 30

Arg Leu Ile Met Gln Lys Gln Lys Glu Leu Glu Ala Ser Asn Ala

Lys Gin Ser 11e Gln Leu Gln Lys Leu Phe Gin Arg Asn Val Leu Asp 50 55 60

Ser Phe Tyr Ser Tyr Val Pro Leu Ser Pro Lys Arg Lys Asp Gln Lys 65 70 75 80

Gly	Arg	Leu	Thr	Пе	Arg	Asp	Leu	Lys	Arg	Glu	Leu	Ser	Thr	Lys	Tyr
				85					90					95	
Leu	Thr	Met	Lys	11e	Gln	Asn	His	Pro]]e	Pro	Gln	Met	Leu	Asn	He
			100					105					110		
Thr	Gly	Arg	Gly	Thr	Pro	Ser	Asn	Arg	Lys	Lys	Leu	Glu	Tyr	Asp	Val
		115					120					125			
Lys	Leu	Lys	Asn	Пе	Λla	Ser	Trp	Ser	Lys	Asp	Val	Ser	Gly	He	Phe
	130					135					140				
11e	Arg	Ser	Leu	Ser	He	Sęr	lle	Met	Arg	Ser	Pro	His	Thr	Asp	Pro
145					150					155					160
Lys	Thr	Asn	Leu	Glu	Arg	Glu	Lys	Arg	He	Cys	Leu	Pro	Lys	Phe	Gln
				165					170					175	
Glu	Lys	Ser	Pro	Asn	Thr	Ser	Glu	Met	Ser	Lys	Arg	Asp	Thr	Leu	Thr
			180					185					190		
11e	Val	Lys.	Gly	Glu	Gln	Asn	Phe	Thr	Asn	Thr	Val	Pro	Gln	Asp	Pro
		195					200					205			
Gln	Pro	Phe	Ala	Val	Asp	Lys	Gln	Gln	Met	Gln	Lys	Leu	Pro	Asn	Val
	210					215					220				
Lys	Ser	Glu	Ala	Asn	Leu	Arg	Ser	Glu	Met	Asn	Lys	Lys	Tyr	Leu	Lys
225					230					235					240
Ala	Gln	Thr	Lys	Glu	Arg	He	Val	Pro	Glu	His	Asp	Val	Ser	Arg	He
				245					250					255	
He	Lys	Lys	Pro	Asp	Leu	Arg	He	He	Glu	Gln	Glu	G] u	Lys	He	Leu
			260					265					270		
Lys	Arg	He	Leu	Thr	Pro	Thr	Glu	Cys	Pro	Ser	Met	Leu	Glu	Asp	Pro
		275					280					285			
Lys	Leu	Pro	Lys	Gln	Arg	Asp	Gln	Ser	Glu	Pro	Val	Trp	Asp	Met	Thr
	290					295					300				
Thr	Gln	Lys	Val	Gln		Gln	Lys	Ala	Phe		G] y	Thr	Val	Pro	Пе
305					310					315					320
Pro	Pro	Gln	Val		Ser	Ser	Glu	Val		He	Val	Ala	Asp		Thr
				325					330					335	
Asn	Ala	Glu		Leu	Leu	Pro	He		G] u	Ala	Thr	Lys		He	Ser
			340					345					350		
Glu	Ser		Val	Lys	Asn	Met		G1n	Asp	Lys	Val	Ser	Ser	Asp	Lys
		355					360					365			

Leu	Asp	Asn	He	Gln	Ala	Tyr	Lys	Pro	Asp	Asp	Leu	Lys	Ser	Pro	Pro
	370					375					380				
Phe	Pro	Glu	Gly	Pro	Asp	Thr	11e	Ser	Thr	Ala	Пе	Tyr	Pro	Lys	Thr
385					390					395					400
G1n	His	Lys	Ser	Leu	Leu	Glu	Gln	Phe	Thr	Pro	Lys	Glu	Lys	Asn	Lys
				405					410					415	
Leu	Thr	Ser	His	Leu	Glu	Ser	Lys	Ala	Leu	Glu	He	Gln	Leu	Asn	Leu
			420					425					430		
Ile	Pro	Glu	Met	Лlа	Arg	Lys	Ser	Leu	Gln	Met	Phe	Asn	Phe	Tyr	Pro
		435					440					445			
Lys	Gly	Thr	He	Ser	Lys	Asp	Asn	Ser	Trp	Arg	Phe	Tyr	Ser	Arg	His
	450					455					460				
Lys	Thr	Met	Asn	Phe	Met	Ser	Leu	Glu	Gly	Thr	Asp	Thr	Пе	Glu	Pro
465					470					475					480
Asn	Ser	Lys	His	Lys	His	Gln	Lys	Asp	Ser	Pro	Leu	Ala	Ser	Asn	Met
				485					490					495	
Lys	Thr	Leu	lle	Val	Asp	Val	Ser	Ser	Asp	Ser	Glu	Glu	Thr	lle	Thr
			500					505					510		
Lys	Leu	Gln	Ser	lle	Asn	Lys	Leu	Glu	Asn	Gly	Thr	Ser	Ala	Val	Thr
		515					520					525			
Ser	Ala	Ser	Glu	Met	Leu	Leu	Pro	His	Thr	Leu	Gln	Asn	His	Ser	Val
	530					535					540				
Glu	Glu	Lys	Gly	Lys	Leu	Leu	Met	His	Phe	Ser	Val	Lys	Thr	Leu	Glu
545					550					555					560
lle	Gln	Met	Lys	Ala	Phe	Pro	Arg	He	Val	Arg	Glu	Ser	Tyr	Ala	Met
				565					570					575	
Thr	Ser	Ala	His	Glu	Arg	Lys	Lys	Pro	Leu	Ser	Asn	Cys	11e	His	Pro
			580					585					590		
Gly	Phe	Thr	Gly	Pro	Lys	Arg	Gln	Asn	Arg	11e	Leu	Leu	Leu	Ser	Glu
		595					600					605			
Glu	Lys	Ser	Leu	His	Gln	He	Asp	Leu	Asp	Leu	Gln	Tyr	Lys	Tyr	Leu
	610					615					620				
Arg	Phe	Pro	Leu	Gly	Leu	Pro	Val	Gly	Ser	Thr	Phe	Pro	Lys	Pro	Asn
625					630					635					640
Val	Leu	Pro	Lys	His	Ser	Lys	Leu	Asn	Thr	11e	Ala	Val	Cys	Lys	Asn
				645					650					655	

Val	Asn	Ala	Gly	Gly	Gln	Ser	Gly	Ser	Leu	Ser	He	Asp	Thr	Glu	Leu
			660					665					670		
Leu	Glu	Gln	His	He	Ser	Phe	Lys	Lys	Gln	Ser	Pro	His	GIu	Asn	Ser
		675					680					685			
Ser	Leu	lle	Arg	Lys	Phe	Pro	Gln	Pro	Thr	Leu	Val	Cys	Ala	Ser	Asp
	690					695					700				
Arg	Asp	Leu ⁻	His	Ser	Pro	Arg	Lys	Lys	Asp	Thr	Gln	Va]	Leu	Ser	G] u
705					710					715					720
Ser	Glu	Phe	His	Val	Thr	Pro	Glu	Lys	Asn	Lys	Gln	Tyr	His	Val	Trp
				725					730					735	
Phe	Gln	Glu	Arg	Asn	Thr	Cys	Glu	Ser	Val	Asp	Leu	Arg	Thr	Gln	Arg
			740					745					750		
Asn	Ala	Thr	Gly	Ser	Ala	Val	Ser	Cys	Glu	Thr	Gln	He	Ser	Glu	Asp
		755					760					765			
Phe	Val	Asp	He	Gln	Thr	Asp	He	Glu	Ser	Pro	Ala	Asp	Leu	Asp	Glu
	770					775					780				
Cys	Ser	Cys	Leu	Glu	Val	Ser	Glu	Ser	Glu	Glu	Cys	Val	Phe	Leu	G] u
785					790					795					800
Ala	Asn	Ser	Tyr	Leu	Ser	Gln	Glu	Ser	Glu	Asn	He	Leu	Phe	61u	Leu
				805					810					815	
Gln	Thr	Gly	He	Pro	Leu	Glu	Asn	Val	Tyr	Lys	lle	Thr	Thr	Asp	Leu
			820					825					830		
Lys	Ser	Phe	Tyr	Ser	Glu	Asp	Ser	Gly	Ser	His	Cys	Thr	Arg	Glu	Cys
		835					840					845			
Arg	Lys	Glu	Thr	Leu	He	He	Thr	Pro	Pro	Ser	Cys	Lys	Ser	His	Lys
	850					855					860				
Ser	Ser	Lys	Tyr	Arg	Ser	Ser	Ser	Lys	Met	Lys	Ser	Pro	Asp	Trp	Leu
865					870					875					880
Cys	His	Ser	Ser	Ser	Asn	Thr	Ala	Glu	lle	Gln	Ser	Arg	Ser	Ser	Ser
				885					890					895	
Val	Ser	Phe	Ser	Glu	Glu	Lys	He	Ser	Trp	Thr	Thr	Asn	Ser	Arg	Thr
			900					905					910		
Ser	Tyr	Ser	Ser	Ala	Pro	Leu	Thr	Glu	Ser	.Asn	He	Lys	Ser	His	Leu
		915					920					925			
Ala	Lys	Asn	Gln	Gly	Lys	Ser	His	Arg	His	Pro	Glu	Ser	Gln	Glu	Arg
	930					935					940				

Lys Lys Ala Arg Ser Asp Leu Phe Arg Lys Asn Ser Ser His Trp Asp 950 955 His Asp Tyr Ser Cys Thr His Ser Lys Gly Lys Arg Asp Arg Lys Lys 965 970 Arg Val Tyr Asp Tyr Glu Ser Glu Arg Leu Asp Cys Phe Gln Ser Lys 980 985 His Lys Ser Ala Ser Lys Pro His His Asp Asp Ile Asn Phe Tyr Ser 1000 1005 Glu Arg Lys Gln Asn Arg Pro Phe Phe Phe Ala Cys Val Pro Ala Asp 1010 1015 1020 Ser Leu Glu Val Ile Pro Lys Thr Ile Arg Trp Thr Ile Pro Pro Glu 1030 1035 Thr Leu Arg Lys Arg Asn Phe Arg Ile Pro Leu Val Ala Lys Ile Ser 1045 1050 Ser Ser Trp Asn 11e Trp Ser Ser Ser Lys Lys Leu Leu Gly Ser Leu 1060 1065 1070 Ser Gly Ser Leu Thr Thr Val Phe His Ser 1075 1080

<210> 3862

<211> 151

<212> PRT

<213> Homo sapiens

<400> 3862

Met Ser Ser Thr Lys Asn Thr Ser Gln Ser lle Arg Glu Lys Phe Arg

1 5 10 15

Trp Ala Pro Phe Tyr Asp Cys Phe Pro Pro Gln Thr Cys Phe Trp Met
20 25 30

lle Gly Cys His Asp Pro Gly Val Leu Gly Phe His Thr Cys Leu Gly
35 40 45

Gln Glu Ser Ser Leu Cys Leu His Val Pro Ser Asp Gly Phe Val Val

50 55 60

His Gln Gly Arg Ala Gly Gly Asn Pro Thr Val Ala Asp Leu Arg Leu

70 75 65 Leu Glu Lys Leu Val Leu His Pro Thr Cys Pro Ser Ser Leu 11e Pro 85 90 Glu Gly His Pro Val Pro Leu Leu Leu Gly Lys Val Pro Pro Ser Thr 100 105 110 Glu Ser Phe Gly Cys His Gly Cys Gln Gly Ala Lys Gly Thr Gly Phe 120 Cys Trp Val Gln Arg Arg Trp His Gln Gly Tyr Leu Gln Val Ala Gly 135 140 Cys Arg Cys Gly Val Val Cys 150

<210> 3863

<211> 786

<212> PRT

<213> Homo sapiens

<400> 3863 Met Phe Thr Asp Phe Leu Ser Phe Met Val Leu Phe Asn Phe Ile Ile 1 5 10 Pro Val Ser Met Tyr Val Thr Val Glu Met Gln Lys Phe Leu Gly Ser 25 20 Phe Phe Ile Ser Trp Asp Lys Asp Phe Tyr Asp Glu Glu Ile Asn Glu 35 45 Gly Ala Leu Val Asn Thr Ser Asp Leu Asn Glu Glu Leu Gly Gln Val Asp Tyr Val Phe Thr Asp Lys Thr Gly Thr Leu Thr Glu Asn Ser Met 70 75 80 Glu Phe Ile Glu Cys Cys lle Asp Gly His Lys Tyr Lys Gly Val Thr 85 90 Gln Glu Val Asp Gly Leu Ser Gln Thr Asp Gly Thr Leu Thr Tyr Phe 105 Asp Lys Val Asp Lys Asn Arg Glu Glu Leu Phe Leu Arg Ala Leu Cys 115 125

Leu Cys His Thr Val Glu Ile Lys Thr Asn Asp Ala Val Asp Gly Ala

	130					135					140				
Thr	Glu	Ser	Ala	Glu	Leu	Thr	Tyr	He	Ser	Ser	Ser	Pro	Asp	Glu	Пе
145					150					155					160
Ala	Leu	Val	Lys	Gly	Ala	Lys	Arg	Tyr	Gly	Phe	Thr	Phe	Leu	Gly	Asn
				165					170					175	
Arg	Asn	Gly	Tyr	Met	Arg	Val	Glu	Asn	Gln	Arg	Lys	Glu	Πe	Glu	Glu
			180					185					190		
Tyr	Glu	Pro	Leu	His	Thr	Leu	Asn	Phe	Asp	Ala	Val	Arg	Arg	Arg	Met
		195					200					205			
Ser	Val	He	Val	Lys	Thr	Gln	Glu	Gly	Asp	He	Leu	Leu	Phe	Cys	Lys
	210					215					220				
Gly	Ala	Asp	Ser	Ala	Val	Phe	Pro	Arg	Val	Gln	Asn	His	Glu	11e	Glu
225					230		٠			235					240
Leu	Thr	Lys	Val	His	Val	Glu	Arg	Asn	Ala	Met	Asp	Gly	Tyr	Arg	Thr
				245					250					255	
Leu	Cys	Val	Ala	Phe	Lys	Glu	lle	Ala	Pro	Asp	Asp	Tyr	Glu	Arg	He
			260					265					270		
Asn	Arg	Gln	Leu	Ile	Glu	Ala	Lys	Met	Ala	Leu	Gln	Asp	Arg	Glu	Glu
		275					280					285			
Lys	Met	Glu	Lys	Val	Phe	Asp	Asp	He	Glu	Thr	Asn	Met	Asn	Leu	He
	290					295					300				
Gly	Ala	Thr	Ala	Val	Glu	Asp	Lys	Leu	Gln	Asp	G1n	Ala	Ala	Glu	Thr
305					310					315					320
He	Glu	Ala	Leu	His	Ala	Ala	Gly	Leu	Lys	Val	Trp	Val	Leu	Thr	Gly
				325					330					335	
Asp	Lys	Met		Thr	Ala	Lys	Ser	Thr	Cys	Tyr	Ala	Cys	_	Leu	Phe
			340					345					350		
Gln	Thr		Thr	Glu	Leu	Leu		Leu	Thr	Thr	Lys		He	Glu	Glu
		355					360			_	_	365		_	
Ser		Arg	Lys	Gļu	Asp		Leu	His	G1u	Leu		lle	Glu	Tyr	Arg
,	370				0.1	375	D.		0	mı	380		rs.		
	Lys	Leu	Leu	HIS		Phe	Pro	Lys	Ser		Arg	Ser	Phe	Lys	
385	T.	Tr.	C.1		390	C.T.	т	C.1		395	7.1		C.1	C	400
Ala	rp	ihr	Glu		Ыn	G.LU	ıyr	ыў		116	116	Asp	Gly	Ser	ınr
اما	Con	1	11.	405	Λ	C	Cara	C1.	410	Car-	Sar	C ~	Λ	415	Т
Leu	ser	-Leu	116	$-$ L.e $_{\rm H}$	ASD	-ser	-ser	oin	ASD	-ser	ser	ser	ASII	Asn	1 7 1

			420					425					430		
Lys	Ser	He	Phe	Leu	Gln	He	Cys	Met	Lys	Cys	Thr	Ala	Val	Leu	Cys
		435					440					445			
Cys	Arg	Met	Ala	Pro	Leu	Gln	Lys	Ala	Gln	He	Val	Arg	Met	Val	Lys
	450					455					460				
Asn	Leu	Lys	Gly	Ser	Pro	He	Thr	Leu	Ser	lle	Gly	Asp	Gly	Ala	Asn
465					470					475					480
Asp	Val	Ser	Met	lle	Leu	Glu	Ser	His	Val	Gly	He	Gly	He	Lys	Gly
				485					490					495	
Lys	Glu	Gly	Arg	Gln	Ala	Ala	Arg	Asn	Ser	Asp	Tyr	Ser	Val	Pro	Lys
			500					505					510		
Phe	Lys	His	Leu	Lys	Lys	Leu	Leu	Leu	Ala	His	Gly	His	Leu	Tyr	Tyr
		515					520					525			
Val	Arg	Val	Ala	His	Leu	Val	Gln	Tyr	Phe	Phe	Tyr	Lys	Asn	Leu	Cys
	530					535					540				
Phe	He	Leu	Pro	Gln	Phe	Leu	Tyr	Gln	Phe	Phe	Cys	Gly	Phe	Ser	Gln
545					550					555					560
Gln	Pro	Leu	Tyr	Asp	Ala	Ala	Tyr	Leu	Thr	Met	Tyr	Asn	He	Cys	Phe
				565					570					575	
Thr	Ser	Leu	Pro	He	Leu	Ala	Tyr	Ser	Leu	Leu	Glu	Gln	His	He	Asn
			580					585					590		
lle	Asp	Thr	Leu	Thr	Ser	Asp	Pro	Arg	Leu	Tyr	Met	Lys	11e	Ser	Gly
		595					600					605			
Asn	Ala	Met	Leu	Gln	Leu	Gly	Pro	Phe	Leu	Tyr	Trp	Thr	Phe	Leu	Ala
	610					615					620				
Ala	Phe	Glu	Gly	Thr	Val	Phe	Phe	Phe	Gly	Thr	Tyr	Phe	Leu	Phe	Gln
625					630					635					640
Thr	Ala	Ser	Leu	Glu	Glu	Asn	Gly	Lys	Val	Tyr	Gly	Asn	Trp	Thr	Phe
				645					650					655	
Gly	Thr	He	Val	Phe	Thr	Val	Leu	Va]	Phe	Thr	Val	Thr	Leu	Lys	Leu
			660					665					670		
Ala	Leu	Asp	Thr	Arg	Phe	Trp	Thr	Trp	Пе	Asn	His	Phe	Va]	He	Trp
		675					680					685			
Gly	Ser	Leu	Ala	Phe	Tyr	Val	Phe	Phe	Ser	Phe	Phe	Trp	Gly	Gly	He
	690					695					700				
He	Trp	Pro	Phe	Leu	Lvs	Gln	G1n	Arg	Met	Tvr	Phe	Val	Phe	Ala	Gln

Met Leu Ser Ser Val Ser Thr Trp Leu Ala IIe IIe Leu Leu IIe Phe Ile Ser Leu Phe Pro Glu Ile Leu Leu Ile Val Leu Lys Asn Val Arg Arg Arg Ser Ala Arg Val Thr Lys Arg Leu Pro Ser Ser Gly Thr Ser Ala Ile Phe Met Leu Ser Gln Thr Ser Ser Asn His Ser Phe Ser Trp Ser Glu <210> 3864 <211> 146 <212> PRT <213> Homo sapiens <400> 3864 Met Ser Ser Arg Ser Leu His Ser Gln Gln Trp Thr Trp Arg Met Gly Ser Ala Arg Pro Thr Leu Thr Gly Ser Ala His Pro Thr Leu Arg Gly Ser Ala Arg Pro Thr Leu Thr Gly Ser Ala His Pro Thr Leu Thr Gly Ser Ala His Pro His Ser Trp Pro Cys Pro Ala Pro Gly Ala Ile Gly Val Ala Leu Ile Gln Pro Leu Phe Leu Ser Gly Pro Phe Pro His Val Ala Leu His Thr His Pro His Ser Gly Pro Ser Ala Thr Glu Gln Asn His Ala Thr Pro Phe Thr Arg Pro Pro Arg Arg Gly Glu Glv Leu Pro Ala Glu Cys Leu Ala Leu His Gln His Leu Leu Ser Ser Pro Thr Thr

Pro Ala Pro Ala Ser Ser Arg Pro Arg Ser Ser Ser Ser Glu Pro

His Leu <210> 3865 <211> 854 <212> PRT <213> Homo sapiens <400> 3865 Met Lys Val Glu Ala Cys Thr Trp Ala Gly Tyr Ser Gly Leu Tyr Glu Ala Ile Glu Ser Trp Asp Phe Lys Lys Ile Glu Lys Leu Glu Glu Tyr Arg Leu Leu Lys Arg Leu Gln Pro Glu Phe Lys Thr Arg Ile Ile Pro Thr Asp Ile Ile Ser Asp Leu Ser Glu Cys Leu Ile Asn Gln Glu Cys Glu Glu Ile Leu Gln Ile Cys Ser Thr Lys Gly Met Met Ala Gly Ala Glu Lys Leu Val Glu Cys Leu Leu Arg Ser Asp Lys Glu Asn Trp Pro Lys Thr Leu Lys Leu Ala Leu Glu Lys Glu Arg Asn Lys Phe Ser Glu Leu Trp Ile Val Glu Lys Gly Ile Lys Asp Val Glu Thr Glu Asp Leu Glu Asp Lys Met Glu Thr Ser Asp Ile Gln Ile Phe Tyr Gln Glu Asp Pro Glu Cys Gln Asn Leu Ser Glu Asn Ser Cys Pro Pro Ser Glu Val Ser Asp Thr Asn Leu Tyr Ser Pro Phe Lys Pro Arg Asn Tyr Gln Leu Glu Leu Ala Leu Pro Ala Met Lys Gly Lys Asn Thr 11e 11e Cys

Ala Pro Thr Gly Cys Gly Lys Thr Phe Val Ser Leu Leu Ile Cys Glu

	•	195					200					205			
His	His	Leu	Lys	Lys	Phe	Pro	Gln	Gly	Gln	Lys	Gly	Lys	Val	Val	Phe
	210					215					220				
Phe	Ala	Asn	G1n	11e	Pro	Val	Tyr	Glu	Gln	Gln	Lys	Ser	Val	Phe	Ser
225					230					235					240
Lys	Tyr	Phe	Glu	Arg	His	Gly	Tyr	Arg	Val	Thr	Gly	Пе	Ser	Gly	Ala
				245					250					255	
Thr	Ala	Glu	Asn	Val	Pro	Val	Glu	G1n	lle	Val	Glu	Asn	Asn	Asp	Hle
			260					265					270		
lle	lle	Leu	Thr	Pro	Gln	lle	Leu	Val	Asn	Asn	Leu	Lys	Lys	G1y	Thr
		275					280					285			
He	Pro	Ser	Leu	Ser	He	Phe	Thr	Leu	Met	He	Phe	Asp	Glu	Cys	His
	290					295					300				
Asn	Thr	Ser	Lys	Gln	His	Pro	Tyr	Asn	Met	11e	Met	Phe	Asn	Tyr	Leu
305					310					315					320
Asp	Gln	Lys	Leu	Gly	Gly	Ser	Ser	Gly	Pro	Leu	Pro	Gln	Val	He	Gly
				325					330					335	
Leu	Thr	Ala	Ser	Val	Gly	Val	Gly	Asp	Ala	Lys	Asn	Thr	Asp	Glu	Ala
			340					345					350		
Leu	Asp	Tyr	He	Cys	Lys	Leu	Cys	Ala	Ser	Leu	Asp	Ala	Ser	Val	He
		355					360					365			
Ala		Val	Lys	His	Asn		G]u	Glu	Leu	G1u		Val	Va]	Tyr	Lys
	370					375					380	_			
	Gln	Lys	Phe	Phe	Arg	Lys	Val	Glu	Ser		He	Ser	Asp	Lys	
385					390					395	0.1	0			400
Lys	Tyr	He	He		Gln	Leu	Met	Arg					Leu		
		C		405		C.1					7.7			415	
Arg	He	Cys		Asp	Leu	61u	Asn		Ser	GIn	11e	GIN		Arg	GIU
DI	Ċ I	T	420	,	Т	61	C1	425	71.	V = 1	ть	V - 1	430	1	A 1 -
Phe	G1 y		61n	Lys	Tyr	610		rp	116	vai	inr		UIN	Lys	Ala
Cara	Mad	435	Dlac	Clas	Mat	Dmo	440	Luci	Aan	C1.	Clu	445	1 22 0	110	Cuc
Cys		vaj	гне	GIII	Met		nsp	LyS	nsp	Gru		361	ni g	He	Cys
Luc	450	Las	Dlace	Lau	Tvv	455	Sor	Hic	Lou	Ara	460	Tur	Acr	Acr	Δ1 ₀
465	ата	Leu	1.116	Leu	Tyr 470	IMF	ser	шѕ	Leu	475	rys	1 y 1	n5II	лър	480
	Tlo	TIO	Sor	Clu	Hic	Λla	Ara	Mod	Lve		Λla	يرم ا	Acn	Tyr	

				485					490					495	
Lys	Asp	Phe	Phe	Ser	Asn	Val	Arg	Ala	Ala	Gly	Phe	Asp	Glu	lle	Glu
			500					505					510		
Gln	Asp	Leu	Thr	Gln	Arg	Phe	Glu	Glu	Lys	Leu	Gln	Glu	Leu	Glu	Ser
		515					520					525			
Val	Ser	Arg	Asp	Pro	Ser	Asn	Glu	Asn	Pro	Lys	Leu	Glu	Asp	Leu	Cys
	530					535					540				
Phe	Пе	Leu	Gln	Glu	Glu	Tyr	His	Leu	Asn	Pro	Glu	Thr	He	Thr	He
545					550					555					560
Leu	Phe	Val	Lys	Thr	Arg	Ala	Leu	Val	Asp	Ala	Leu	Lys	Asn	Trp	Ile
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Glu	Gly	Asn	Pro	Lys	Leu	Ser	Phe	Leu	Lys	Pro	Gly	Пе	Leu	Thr	Gly
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Arg	Gly	Lys	Thr	Asn	Gln	Asn	Thr	G1 y	Met	Thr	Leu	Pro	Ala	Gln	Lys
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Val	He	Leu	Tyr	Glu	Tyr	Val	Gly	Asn	Val	He	Lys	Met	He	Gln	Thr
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Arg	Gly	Arg	Gly	Arg	Ala	Arg	Gly	Ser	Lys	Cys	Phe	Leu	Leu	Thr	Ser
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Asn	Ala	Gly	Val	He	Glu	Lys	Glu	Gln	He	Asn	Met	Tyr	Lys	Glu	Lys
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Phe	Arg	Glu	Lys	He	Leu	His	He	Gln	Thr	His	Glu	Lys	Phe	He	Arg
705					710					715					720
Asp	Ser	Gln	Glu	Lys	Pro	Lys	Pro	Val	Pro	Asp	Lys	G] u	Asn	Lys	Lys
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Leu	Leu	Cys	Arg	Lys	Cys	Lys	Ala	Leu	Ala	Cys	Tyr	Thr	Λla	Asp	Val
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770 775 780 Phe Glu Lys Arg Ala Lys lle Phe Cys Ala Arg Gln Asn Cys Ser His 790 795 Asp Trp Gly lle His Val Lys Tyr Lys Thr Phe Glu lle Pro Val Ile 805 810 Lys Ile Glu Ser Phe Val Val Glu Asp Ile Ala Thr Gly Val Gln Thr 825 Leu Tyr Ser Lys Trp Lys Asp Phe His Phe Glu Lys Ile Pro Phe Asp 835 840 845 Pro Ala Glu Met Ser Lys 850 <210> 3866 <211> 1205 <212> PRT <213> Homo sapiens <400> 3866

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	130					135					140				
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Leu	Ala	Gln	Thr	Asp	Phe	Pro	Leu	Gln	Ala	Tyr	Glu	Pro	Lys	Met	Gln
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Val	Pro	Phe	Gln	Val	Leu	Pro	Gly	Gln	His	Pro	Arg	Lys	He	Glu	11e
			180					185					190		
Glu	Arg	Arg	Lys	Gln	Gln	Tyr	Leu	Ser	Leu	Asp	11e	Glu	Gln	Leu	Leu
		195					200					205			
Phe	Ser	Gln	Gly	He	Asp	Ser	Asn	Lys	Leu	Met	Pro	Arg	His	Leu	Asp
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His	Gln	His	Pro	Gln	Thr	Пе	Glu	Gln	Gly	His	Asp	Pro	He	Phe	Pro
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He	Tyr	Leu	Pro	Leu	Lys	Val	Phe	Asp	Asn	Glu	Asp	Phe	Asp	Cys	Arg
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Thr	Pro	Arg	Glu	Trp	He	Asn	Met	Gl y	Leu	Glu	Pro	Gly	Ser	Leu	Asp
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Arg	Lys	Pro	Val	Pro	Gly	Lys	Ala	Leu	Leu	Pro	Thr	Asp	Asp	Phe	Leu
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Gly	His	Glu	Asp	Pro	Lys	Ser	Gln	Lys	Leu	Lys	Tyr	Lys	Trp	Cys	Glu
	290					295					300				
Va1	Gly	Val	Leu	Asp	Tyr	Asp	Glu	Glu	Lys	Lys	Leu	Tyr	Leu	Val	His
305					310					315					320
Lys	Thr	Asp	Glu	Lys	Gly	Leu	Val	Arg	Asp	Glu	Met	Gly	Arg	Pro]]e
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Gln	Tyr	Trp	Va]	Pro	Arg	Пе	Gln	Leu	Leu	Phe	Cys	Ala	Glu	Asp	Pro
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Cys	Met-	Phe	Ala	Gln	Arg	Val	Va]	Gln	Ala	Asn	Ala	Leu	Arg	Lys	Asn
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Thr	Glu	Ala	Leu	Leu	Leu	Tyr	Asn	Leu	Tyr	Va]	Asp	Cys	Met	Pro	Ser
385					390					395					400
Asp	Gly	Gln	His	Val	He	Ser	Glu	Gln	Ser	Leu	Ser	Lys	11e	Lys	Gln
				405					410					415	
Trp	Ala	Leu	Ser	Thr	Pro	Arg	Met	Arg	Lys	Gly	Pro	Ser	Val	Leu	Glu

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His	Leu	Ser	Ser	Leu	Ala	Arg	Glu	Va]	Ser	Leu	Asp	Tyr	Glu	Arg	Ser
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Met	Asn	Lys	He	Asn	Phe	Asp	His	Val	Val	Ser	Ser	Lys	Pro	Glu	Thr
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Phe	Ser	Tyr	Val	Thr	Leu	Pro	Lys	Lys	Glu	Glu	Glu	Gln	Val	Pro	Glu
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Arg	Gly	Leu	Val	Ser	Va]	Pro	Lys	Tyr	His	Phe	Trp	Glu	Gln	Lys	Glu
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Asp	Phe	Thr	Phe	Val	Ser	Leu	Leu	Thr	Arg	Pro	Glu	Val	He	Thr	Ala
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Leu	Ser	Lys	Val	Arg	Ala	Glu	Cys	Asn	Lys	Val	Thr	Ala	Met	Ser	Leu
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Phe	His	Ser	Ser	Leu	Ser	Lys	Tyr	Ser	His	Leu	Glu	Glu	Phe	Glu	Gln
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He	Gln	Ser	Gln	Thr	Phe	Ser	Gln	Va]	Gln	Met	Phe	Leu	Lys	Asp	Ser
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Trp	lle	Ser	Ser	Leu	Lys	Va1	Ala	Met	Arg	Ser	Ser	Leu	Arg	Asp	Met
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Ser	Lys	Gly	Trp		Asn	Leu	Tyr	Glu		Asn	Trp	Glu	Val		Leu
Ser	Lys	Gly	Trp 580		Asn	Leu	Tyr	G1u 585		Asn	Trp	Glu	Val 590		Leu
			580	Tyr				585	Thr					Tyr	
			580	Tyr				585	Thr				590	Tyr	
Met	Ser	Lys 595	580 Leu	Tyr Arg	Lys	Leu	Met 600	585 Glu	Thr Leu	Va1	Lys	Tyr 605	590	Tyr Leu	G1n
Met	Ser	Lys 595	580 Leu	Tyr Arg	Lys	Leu	Met 600	585 Glu	Thr Leu	Va1	Lys	Tyr 605	590 Met	Tyr Leu	G1n
Met Asp	Ser Thr 610	Lys 595 Leu	580 Leu Arg	Tyr Arg Phe	Lys Leu	Leu Val 615	Met 600 Gln	585 Glu Asp	Thr Leu Ser	Va] Leu	Lys Ala 620	Tyr 605 Ser	590 Met	Tyr Leu Ser	Gln Gln
Met Asp	Ser Thr 610	Lys 595 Leu	580 Leu Arg	Tyr Arg Phe	Lys Leu	Leu Val 615	Met 600 Gln	585 Glu Asp	Thr Leu Ser	Va] Leu	Lys Ala 620	Tyr 605 Ser	590 Met Phe	Tyr Leu Ser	Gln Gln
Met Asp Phe 625	Ser Thr 610 11e	Lys 595 Leu Ser	580 Leu Arg Asp	Tyr Arg Phe Thr	Lys Leu Cys 630	Leu Val 615 Cys	Met 600 Gln Ser	585 Glu Asp Val	Thr Leu Ser Leu	Val Leu Asn 635	Lys Ala 620 Cys	Tyr 605 Ser Thr	590 Met Phe	Tyr Leu Ser Asp	Gln Gln Met 640
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Met Asp Phe 625 Val	Ser Thr 610 Ile	Lys 595 Leu Ser Gly	580 Leu Arg Asp	Tyr Arg Phe Thr Asp 645	Lys Leu Cys 630 Leu	Leu Val 615 Cys	Met 600 Gln Ser Asn	585 Glu Asp Val Ser	Thr Leu Ser Leu Pro 650	Val Leu Asn 635 Tyr	Lys Ala 620 Cys	Tyr 605 Ser Thr	590 Met Phe Asp	Tyr Leu Ser Asp Lys 655	Gln Gln Met 640 Asn
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Met Asp Phe 625 Val Pro Ser	Ser Thr 610 11e Trp Leu Thr	Lys 595 Leu Ser Gly Phe Pro 675	580 Leu Arg Asp Asp 11e 660 Leu	Tyr Arg Phe Thr Asp 645 Met	Lys Leu Cys 630 Leu Asp	Leu Val 615 Cys Ile Leu Phe	Met 600 Gln Ser Asn Val Glu 680	585 Glu Asp Val Ser Leu 665 Ala	Thr Leu Ser Leu Pro 650 Asp	Val Leu Asn 635 Tyr Ser Leu	Lys Ala 620 Cys Arg Ser Leu	Tyr 605 Ser Thr Pro Gly Asn 685	590 Met Phe Asp Arg Val 670 Leu	Tyr Leu Ser Asp Lys 655 His	Gln Gln Met 640 Asn Tyr
Met Asp Phe 625 Val Pro Ser	Ser Thr 610 11e Trp Leu Thr	Lys 595 Leu Ser Gly Phe Pro 675	580 Leu Arg Asp Asp 11e 660 Leu	Tyr Arg Phe Thr Asp 645 Met	Lys Leu Cys 630 Leu Asp	Leu Val 615 Cys Ile Leu Phe	Met 600 Gln Ser Asn Val Glu 680	585 Glu Asp Val Ser Leu 665 Ala	Thr Leu Ser Leu Pro 650 Asp	Val Leu Asn 635 Tyr Ser Leu	Lys Ala 620 Cys Arg Ser Leu	Tyr 605 Ser Thr Pro Gly Asn 685	590 Met Phe Asp Arg Val 670	Tyr Leu Ser Asp Lys 655 His	Gln Gln Met 640 Asn Tyr
Met Asp Phe 625 Val Pro Ser Lys	Ser Thr 610 11e Trp Leu Thr Gly 690	Lys 595 Leu Ser Gly Phe Pro 675 Ile	580 Leu Arg Asp Asp 11e 660 Leu Leu	Arg Phe Thr Asp 645 Met Glu Ala	Lys Leu Cys 630 Leu Asp Gln Thr	Leu Val 615 Cys Ile Leu Phe His 695	Met 600 Gln Ser Asn Val Glu 680 Ala	585 Glu Asp Val Ser Leu 665 Ala	Thr Leu Ser Leu Pro 650 Asp Ser	Val Leu Asn 635 Tyr Ser Leu Gln	Lys Ala 620 Cys Arg Ser Leu Leu 700	Tyr 605 Ser Thr Pro Gly Asn 685 Glu	590 Met Phe Asp Arg Val 670 Leu	Leu Ser Asp Lys 655 His Phe	Gln Gln Met 640 Asn Tyr Asp

705					710					715					720
Leu	His	G1u	Pro		Va]	Glu	Glu	Leu		Ala	Thr	He	Ala		Ala
., .	_			725		-			730					735	
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Lys	Tyr	Leu 755	Glu	Leu	Asn	Asn		Asp	He	Ala	Ser		Leu	Lys	Thir
т	61		6.1	C.1			760	6.1	6.7			765			
lyr	770	Inr	GIN	біу	Leu	775	Ala	Gln	GIU	vai	780	Glu	Val	Val	Leu
Thr	His	Leu	Arg	Glu	Lys	Glu	lle	Leu	Asp	Ser	Ser	Leu	Pro	Ser	Ser
785				•	790					795					800
He	He	Пe	G1y	Pro	Phe	Tyr	He	Asn	Thr	Asp	Asn	Val	Lys	Gln	Ser
				805					810					815	
Leu	Ser	Lys	Lys	Arg	Lys	Ala	Leu	Ala	Thr	Ser	Va1	Leu	Asp	He	Leu
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Ala	Lys	Asn	Leu	His	Lys	Glu	Val	Asp	Ser	He	Cys	Glu	Glu	Phe	Arg
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Ser	He	Ser	Arg	Lys	Ile	Tyr	Glu	Lys	Pro	Asn	Ser	lle	G] u	Glu	Leu
	850					855					860	,			
Ala	Glu	Leu	Arg	Glu	Trp	Met	Lys	Gly	Пе	Pro	Glu	Arg	Leu	Va]	Gly
865					870					875					880
Leu	Glu	Glu	Arg	He	Val	Lys	Va]	Met	Asp	Asp	Tyr	Gln	Val	Met	Asp
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Glu	Phe	Leu	Tyr	Asn	Leu	Ser	Ser	Asp	Asp	Phe	Asn	Asp	Lys	Trp	Пе
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Ala	Ser	Asn	Trp	Pro	Ser	Lys	11e	Leu	Gly	Gln	Пе	Glu	Leu	Val	Gln
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Gln	Gln	His	Val	Glu	Asp	Glu	Glu	Lys	Phe	Arg	Lys	Пe	Gln	Пе	Met
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Asp	Gln	Asn	Asn	Phe	Gln	Glu	Lys	Leu	Glu	G1 y	Leu	Gln	Leu	Val	Va]
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Ala	Gly	Phe	Ser	He	His	Va]	Glu	Пе	Ser	Arg	Ala	His	G] u	He	Ala
				965					970					975	
Asn	Glu	Val	Arg	Arg	Val	Lys	Lys	Gln	Leu	Lys	Asp	Cys	GĮn	Gln	Leu
			980					985					990		
Ala	Met	Len	Tyr	Asn	Asn	Ara	Glu	Arg	Tle	Phe	Sor	Lau	Pro	110	The

		995					1000					1005			
Asn	Tyr	Asp	Lys	Leu	Ser	Arg	Met	Val	Lys	Glu	Phe	Gln	Pro	Tyr	Leu
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Asp	Leu	Trp	Thr	Thr	Ala	Ser	Asp	Trp	Leu	Arg	Trp	Ser	G] u	Ser	Trp
102	5			•	1030					1035					1040
Met	Asn	Asp	Pro	Leu	Ser	Ala	He	Asp	Ala	Glu	Gln	Leu	Glu	Lys	Asn
				1045					1050					1055	
Val	Val	Glu	Ala	Phe	Lys	Thr	Met	His	Lys	Cys	Val	Lys	Gln	Phe	Lys
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Asp	Met	Pro	Ala	Cys	Gln	Glu	Val	Ala	Leu	Asp	lle	Arg	Ala	Arg	He
		1075					1080					1085			
Gľu	Glu	Phe	Lys	Pro	Tyr	He	Pro	Leu	He	Gln	Gly	Leu	Arg	Asn	Pro
-	1090					1095				į	1100				
Gly	Met	Arg	He	Arg	His	Trp	Glu	Thr	Leu	Ser	Asn	Gln	11e	Asn	Пе
1105	5]	110					1115				}	1120
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Ser	Asp	Leu	Ser	G1n	Val	Phe	Gln	Pro	Tyr	Thr	Leu	Arg	Thr	Arg	Arg
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Asn	Ser	Thr	Thr	He	Met	Ser	Arg	His	Ser	Leu	Leu	Leu	Ser	Ser	Ser
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Pro	Asn	Arg	He	Pro	Ser	Ser	Arg	Leu	His	Gln	He	Lys	Arg	Glu	Glu
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Gly	Leu	Asp	Met	Val	Asn	Arg	Glu	Thr	Ala	His	Glu	Arg	Glu	Met	Gln
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Thr	Ala	Met	Gln	He	Ser	Gln	Ser	Trp	Asp	Glu	Ser	Leu	Ser	Leu	Ser
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Asp	Ser		Phe	Asp	Lys	Pro		Lys	Leu	Tyr	Ser		Lys	Λrg	He
		115					120					125			
Asp		Thr	Pro	Val	Ser	Pro	Ala	Pro	Ser	Pro		Arg	Gly	Phe	Gly
	130			_	_	135				_	140	_		_	
_	Met	Phe	Val	Ser		Ser	Gly	Leu	Pro		Ser	Pro	Val	Pro	
145			DI	C	150		C	61	C	155 D	v 1		C	T 1	160
Pro	Arg	Arg	Phe		Arg	Arg	Ser	GIn		Pro	val	Lys	Cys		Arg
D	Can	V s. 1	Lan	165	Dana	Lan	1	Λ	170	C1	C1	Uat	C1	175	C1
PTO	ser	vai	180	GIŅ	110	Leu	Lys	185	Lys	GIŸ	Glu	Met		1111	61u
Sor	Cln	Pro		Ara	Lou	Phe	Gln		The	Thr	Aen	Mot	190 Lou	Sor	Pro
261	0111	195	rys	ΛI g	Leu	THE	200	01 y	1111	1113	лап	205	Leu	361	110
Asn	Ala		Gln	Len	Ser	Asp		Ser	Ser	Cvs	Ser		He	Leu	Asn
пор	210		0111	bea	561	215	bea	001	501	O, 5	220	пор	110	Lea	пор
G1 v		Ser	Ser	Ser	Ser	Gly	Leu	Ser	Ser	Asp		Leu	Ala	Lvs	Glv
225					230					235					240
Ser	Ala	Thr	Ala	Glu	Ser	Pro	Val	Ala	Cys	Ser	Asn	Ser	Cys	Ser	Ser
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Lys Leu Glu Asp Ala Gly Ser Cys Glu Gly Gln Glu Lys Thr Thr Asp
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Glu Pro Thr Glu Pro Gly Lys Tyr Pro Cys Gly Glu Phe Ser Pro Arg
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Pro Pro Glu Thr Arg Val Ser Cys Leu Pro Pro Glu Pro Pro Lys Thr
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Pro Val Ser Ser Leu Arg Pro Glu Pro Pro Glu Thr Gly Val Ser His
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Leu Arg Pro Gln Pro Pro Lys Thr Gln Val Ser Ser Leu His Leu Glu
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                                105
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Pro Pro Glu Thr Gly Val Ser His Leu Arg Pro Glu Pro Pro Lys Thr
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                                                 125
Gln Val Ser Ser Leu His Leu Glu Pro Pro Glu Thr Gly Val Ser His
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Leu Tyr Leu Glu Pro Ser Gly Thr Gly Val Ser His Leu Cys Pro Glu
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                                        155
Pro Pro Lys Thr Arg Val Ser His Leu His Arg Glu Pro Pro Glu Thr
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Gly Val Pro Asp Leu Cys Leu Glu Pro Pro Lys Ser Arg Val Ser His
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                                                     190
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Leu Arg Pro Glu Pro Ser Glu Thr Gly Val Ser His Leu His Pro Glu
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Pro Pro Lys Thr Leu Val Ser Ser Leu His Pro Glu Pro Pro Glu Thr
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Gly Val Ser His Leu Cys Pro Glu Pro Pro Glu Thr Arg Val Ser Pro
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G1 y	Val	Ser	His	Leu	Λrg	Pro	Glu	Pro	Pro	Lys	Thr	Arg	Val	Ser	Ser
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385 Dna	Dmo	Lua	lla.	Lan	390	C	C	1	112 -	395	A.1 .	n.	D.	C1	400
F10	F10	Lys	116	405	Val	ser	ser	Leu	410	GIN	Ala	Pro	Pro		Ser
Sar	Val	Sor	Hic		Arg	Dro	Clu	Dro		C1.,	The	Cl _w	Vol.	415	Uio
361	vai	361	420	Leu	MIg	110	Gru	425	110	Glu	1111	Gly	430	ser	nis
Len	Aro	Pro		Pro	Pro	lve	The		Mat	Tur	Sor	Lou		Pro	Clu
Bed	5	435	014		.10	Lyo	440	MI B	inc t	1 9 1	561	445	мв	110	Oju
Pro	Pro		Thr	Glv	Val	Ser		Leu	Cvs	Pro	Glu		Pro	lve	Thr
	450	,-		,		455		204	0,0		460			Lyo	
Arg		Ser	Ser	Leu	Pro		Glu	Pro	Pro	G]u		Glv	Val	Ser	His
465					470					475					480
Leu	Cys	Pro	Glu	Pro	Pro	Glu	Thr	Arg	Val		His	Leu	Arg	Pro	
				485				_	490					495	
Pro	Pro	Glu	Thr	Gly	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Lys	Thr
			500					505					510		
Arg	Met	Tyr	Ser	Leu	Arg	Pro	Glu	Pro	Pro	Asn	Thr	Gly	Val	Ser	His
		515					520					525			

Leu		Pro	Glu	Pro	Pro	Lys	Thr	Arg	Va]	Ser	Ser	Leu	Pro	Pro	Glu
	530					535					540				
Pro	Pro	Glu	Thr	G] y	Val	Ser	His	Leu	Cys	Pro	Glu	Pro	Pro	G] u	Thr
545					550					555					560
Arg	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Glu	Thr	Gly	Val	Ser	Arg
				565					570					575	
Leu	His	Pro	Glu	Pro	Pro	Lys	Thr	Arg	Val	Ser	Ser	Leu	His	Ala	Glu
			580					585					590		
Pro	Pro	Glu	Ser	Arg	Val	Ser	His	Leu	Cys	Pro	Glu	Pro	Pro	Glu	Thr
		595					600					605			
Gly	Val	Ser	His	Leu	Arg	Pro	Glu	Pro	Pro	Lys	Pro	Arg	Val	Ser	Ser
	610					615					620				
Leu	Arg	Рго	Glu	Pro	Leu	Glu	Thr	Arg	Val	Ser	His	Leu	Arg	Pro	Glu
625					630					635					640
Pro	Pro	Glu	Thr	Gly	Va]	Ser	His	Leu	His	Pro	Glu	Leu	Pro	Lys	Pro
				645					650					655	
Arg	Val	Ser	Ser	Leu	His	Leu	Glu	Pro	Pro	Lys	Thr	Arg	Arg	Val	Ser
			660					665					670		
Ser	Leu	Arg	Leu	Glu	Pro	Pro	Lys	Thr	Gly	Arg	Val	Ser	Ser	Leu	Cys
		675					680					685			
Pro	Glu	Pro	Thr	Lys	Thr	Gly	Ala	Ser	His	Leu	Lys	Glu	Leu	Phe	Gln
	690					695					700				
Glu	Gly	Thr	Ser	Ser	Thr	Met	Glu	Cys	Val	Ser	Asp	Ser	Leu	Gln	Arg
705					710					715					720
Arg	His	Thr	Ser	Arg	Lys	Leu	Arg	Asp	Phe	Lys	Trp	Ala	Gly	Asp	Leu
				725					730					735	
Gly	Val	Asn	Glu	Glu	Ser	He	Ser	Ser	Leu	Phe	Asp	Phe	Thr	Pro	Glu
			740					745					750		
Cys	Arg	Ala	Thr	Tyr	Gln	Asp	Gln	Lys	Asn	Lys	Lys	Ala	Asn	Glu	Cys
		755					760					765			
Ser	Ser	Gly	Leu	Lys	Tyr	Ser	Met	Glu	Leu	Asp	Glu	Met	Asp	Glu	Val
	770					775					780				
Lys	Phe	Phe	Ser	Gln	Glu	Lys	Asp	Leu	Asp	Gly	Lys	He	Gln	Asn	Ala
785					790					795					800
Pro	Asn	Ser	His	Ser	Ala	Gln	His	Val	Lys	Met	Gly	Tyr	G1 y	Ala	Trp
				805					810					815	

Tyr Leu Lys Pro Lys Leu Gly Lys Lys Leu Arg Ser Asp Glu Pro Leu 825 lle Asp Pro Lys Leu Val Leu Glu Lys Pro Asp Glu Pro Asp Ile Leu 835 840 845 Asp Gly Leu Tyr Gly Pro 11e Ala Phe Lys Asp Phe 11e Leu Ser Lys 855 Gly Tyr Glu Met Pro Gly Ile Ile Gln Arg Leu Phe Ala Arg Arg Gly 870 875 Trp Thr Tyr Asp Ser Val Lys Thr Pro Ile Gln Arg Ala Met Gln Val 885 890 895 Tyr Lys Tyr Lys Glu Asp Val Thr Asp Ala Ser Glu Glu Asp 900 905

<210> 3869

<211> 233

<212> PRT

<213> Homo sapiens

<400> 3869

Met Arg Glu Trp Glu Asn Arg Asn Arg Gly Leu Arg Glu Leu Glu Glu 10 Val Ala Gly Ser Ser Arg Thr Arg Glu Gln Leu Val Pro Arg Leu Gly 20 25 30 Gly Arg Ala Gly Tyr Asp Trp Trp Ala Ser Gly Glu Val Gln Ser Gly 40 Arg Glu Glu Ala Gly Glu Ala His Pro Ser Val Ala Glu Ser Ser Leu 50 55 60 Arg Thr Arg Gly Trp Gly Gly Asp Ser His Ala Met Thr Ala Ser Pro 65 70 75 80 Val Pro Ala Leu Gln Leu Val Ser Ser Lys Arg Asp Leu Val Leu Val 90 Lys Glu Ala Leu Ser Trp Tyr Asp Ala Gln Gln His Cys Arg Leu His 100 110

Tyr Thr Asp Leu Ala Asp Leu Gln Pro Ser Gly Leu Trp Lys Leu Tyr

115 120 125 Ser Leu Met Thr Ser Thr Pro Ala Trp Ile Gly Leu Phe Phe Asp Ala 135 140 Ser Thr Ser Gly Leu Arg Trp Ser Ser Gly Ser Thr Phe Thr Ala Leu 145 150 155 160 Glu Trp Gly Gln Lys Leu Pro Glu Phe Gly Val Gly Phe Cvs Ala Thr 170 Leu Tyr Thr Trp Leu Lys Leu Pro Ser Ile Gly Ala Ala Ser Cys Thr 185 190 Ala Gln Lys Pro Phe Leu Cys Tyr Cys Gly Val Phe Thr Phe Ile Phe 195 200 205 Gln Ala Trp Ser Phe Pro Gln Gly Pro His Ser Val Ala Gln Ala Gly 215 220 Val Gln Trp Cys Asp His Ser Ser Leu 225 230

<210> 3870

<211> 127

<212> PRT

<213> Homo sapiens

<400> 3870

Met Glu Lys Ala Ser Gly Ala Leu Arg Cys Gln Gln Lys Arg Cys He 1 5 10 15

Ser Glu Leu Thr Val Met Thr Gln Ile Gly Arg Glu Gly Asn Met Trp
20 25 30

Val Arg Val Ala Ala Met Gly Val Asn Met Ile Lys Tyr Gly Gly
35 40 45

Val Gln 11e Ser Trp Thr Trp Leu Gln Ser Val Phe 11e Phe Ser Leu 50 55 60

Ser Glu Arg Val Phe Gly Phe Ser lle Leu Leu lle Leu Gln Ala lle 65 70 75 80

His Tyr Val Pro Trp Glu Val Glu Trp Pro Ser Ser Leu Leu Cys Val

Gly Tyr Thr Ala Cys Leu Thr Ser Leu Trp Val Leu His His Leu His 100 105 110

Ala His Met Ile Pro Leu Phe Glu Leu Met Ala Gly Asn Arg Thr 115 120 125

<210> 3871

<211> 842

<212> PRT

<213> Homo sapiens

<400> 3871

Met Gly Ala Arg Ala Ala Gly Thr Ser Ser Gly Gly Gly Pro Arg Pro

1 5 10 15

Cys Leu Ala Arg Gly Leu Ser Ala Ser Pro Phe Pro Ala Lys Gln Gln 20 25 30

His Pro Gln Ala Gly Ala Ser Pro Ala Glu Leu Gln Gln Arg Ala Tyr 35 40 45

Tyr Arg Ala Arg Gln Asp Ala Ala Ser Gln Pro Gly Leu Gly Phe Leu 50 55 60

11e Ser Pro Ser Ser Cys Ser Ser Trp Gly Pro Gly Ser Phe Thr Arg
65 70 75 80

Ser Cys Gly Tyr Pro Thr Leu Cys Ser Ser Trp Ile Ser Lys Arg Glu 85 90 95

Pro Gly Glu Leu Ser Gly Val Trp Thr Ser Ala Trp Arg Thr His Ala 100 105 110

Ala Phe Thr Gly Ser Gln Asp Leu Cys Leu Tyr Lys Gly Leu Leu Gly
115 120 125

Ser He Tyr Glu Asp Lys Thr Ala Leu Ser Leu Leu Gly Leu Gly Glu 130 135 140

Glu Thr Asn Glu Glu Asp Glu Glu Glu Ser Asp Asn Gln Ser Val His 145 150 155 160

Ser Ser Ser Glu Pro Leu Arg Asn Leu His Leu Asp Ile Gly Ala Leu 165 170 175

Gly Gly Asp Phe Glu Tyr Glu Glu Ser Leu Arg Thr Ser Gln Pro Glu

			180					185					190		
Glu	Lys	Lys	Лsp	Val	Ser	Leu	Asp	Ser	Asp	Ala	Ala	G1 y	Pro	Pro	Thr
		195					200					205			
Pro	Cys	Lys	Pro	Ser	Ser	Pro	Gly	Ala	Asp	Ser	Ser	Leu	Ser	Ser	Ala
	210					215					220				
Val	Gly	Lys	G1 y	Arg	Gln	Gly	Ser	Gly	Ala	Arg	Pro	Gly	Leu	Pro	Glu
225					230					235					240
Lys	Glu	G1u	Asn	Glu	Lys	Ser	Glu	Pro	Lys	He	Cys	Arg	Asn	Leu	Val
				245					250					255	
Thr	Pro	Lys	Ala	Asp	Pro	Thr	Gly	Ser	Glu	Pro	Ala	Lys	Ala	Ser	Glu
			260					265					270		
Lys	Glu	Ala	Pro	Glu	Asp	Thr	Val	Asp	Ala	G] y	Glu	Glu	G1 y	Ser	Arg
		275					280					285			
Arg	Glu	Glu	Ala	Ala	Lys	Glu	Pro	Lys	Lys	Lys	Ala	Ser	Ala	Leu	Glu
	290					295					300				
Glu	Gly	Ser	Ser	Asp	Ala	Ser	Gln	Glu	Leu	Glu	He	Ser	Glu	His	Met
305					310					315					320
Lys	Glu	Pro	Gln	Leu	Ser	Asp	Ser	He	Ala	Ser	Asp	Pro	Lys	Ser	Phe
				325					330					335	
His	Gly	Leu	Asp	Phe	Gly	Phe	Arg	Ser	Arg	He	Ser	Glu	His	Leu	Leu
			340					345					350		
Asp	Val	Asp	Val	Leu	Ser	Pro	Val	Leu	Gly	Gly	Ala	Cys	Λrg	Gln	Ala
		355					360					365			
Gln	G1n	Pro	Leu	Gly	Пе	Glu	Asp	Lys	Asp	Asp	Ser	Gln	Ser	Ser	Gln
	370					375					380				
Asp	Glu	Leu	Gln	Ser	Lys	Gln	Ser	Lys	Gly	Leu	Glu	Glu	Arg	Tyr	His
385					390					395					400
Arg	Leu	Ser	Pro	Pro	Leu	Pro	His	Glu	Glu	Arg	Ala	Gln	Ser	Pro	Pro
				405					410					415	
Arg	Ser	Leu	Ala	Thr	Glu	6]u	Glu	Pro	Pro	Gln	Gly	Pro	Glu	Gly	Gln
			420					425					430		
Pro	Glu	Trp	Lys	Glu	Ala	Glu	Glu	Leu	G1 y	Glu	Asp	Ser	Ala	Ala	Ser
		435					440					445			
Leu	Ser	Leu	G1n	Leu	Ser	Leu	G1n	Arg	Arg	Ser	Thr	Glu	Pro	Val	Ala
	450					455					460				
Pro	Pro	Glu	Gln	Leu	Ser	Glu	Ala	Ala	Leu	Lys	Λla	Met	Glu	G] u	Ala

465					470					475					480
Va]	Ala	Gln	Va]	Leu	Glu	Gln	Asp	Gln	Arg	His	Leu	Leu	Glu	Ser	Lys
				485					490					495	
Gln	Glu	Lys	Met	Gln	Gln	Leu	Arg	Glu	Lys	Leu	Cys	Gln	Glu	Glu	Glu
			500					505					510		
Glu	Glu	He	Leu	Arg	Leu	His	Gln	Gln	Lys	Glu	Gln	Ser	Leu	Ser	Ser
		515					520					525			
Leu	Arg	Glu	Arg	Leu	Gln	Lys	Ala	He	Glu	Glu	Glu	Glu	Ala	Arg	Met
	530					535					540				
Arg	Glu	Glu	Glu	Ser	Gln	Arg	Leu	Ser	Trp	Leu	Arg	Ala	Gln	Val	Gln
545					550					555					560
Ser	Ser	Thr	Gln	Ala	Asp	Glu	Asp	Gln	He	Arg	Ala	Glu	Gln	Glu	Ala
				565					570					575	
Ser	Leu	Gln	Lys	Leu	Arg	G]u	Glu	Leu	G1u	Ser	Gln	Gln	Lys	Ala	Glu
			580					585					590		
Arg	Ala	Ser	Leu	Glu	Gln	Lys	Asn	Arg	Gln	Met.	Leu	Glu	Gln	Leu	Lys
		595					600					605			
Glu	Glu	He	Glu	Ala	Ser	Glu	Lys	Ser	Glu	Gln	Ala	Ala	Leu	Asn	Ala
	610					615					620				
Ala	Lys	Glu	Lys	Ala	Leu	Gln	Gln	Leu	Arg	Glu	Gln	Leu	Glu	G] y	Glu
625					630					635					640
Arg	Lys	G1u	Ala	Va]	Ala	Thr	Leu	Glu	Lys	Glu	His	Ser	Ala	Glu	Leu
				645					650					655	
Glu	Arg	Leu	Cys	Ser	Ser	Leu	Glu	Ala	Lys	His	Arg	Glu	Val	Val	Ser
			660					665					670		
Ser	Leu	Gln	Lys	Lys	He	G1n	Glu	Ala	Gln	Gln	Lys	Glu	Glu	Ala	Gln
		675					680					685			
Leu	Gln	Lys	Cys	Leu	Gly	Gln	Val	Glu	His	Arg	Val	His	Gln	Lys	Ser
	690					695					700				
	His	Val	Ala	Gly		G]u	His	Glu	Leu		Ser	Leu	Leu	Arg	
705					710					715					720
Lys	Arg	GIn	Glu		Glu	Gly	Glu	His		Arg	Arg	Leu	Asp	Lys	Met
				725					730					735	
Lys	Glu	G] u	His	Gln	Gln	Val	Met		Lys	Ala	Arg	Glu		Tyr	Glu
			740					745					750		
Ala	G1n	61n	Aro	Ve	Gln	Arc	Als	G1n	100	Len	G1v	Hic	Lou	Thr	G1v

755 760 765 Glu Leu Glu Arg Leu Gln Arg Ala His Glu Arg Glu Leu Glu Thr Val 775 780 Arg Gln Glu Gln His Lys Arg Leu Glu Asp Leu Arg Arg His Arg 790 795 800 785 Glu Glu Glu Arg Lys Leu Gln Asp Leu Glu Leu Asp Leu Glu Thr Arg 805 810 Ala Lys Asp Val Lys Ala Arg Leu Ala Leu Leu Glu Val Gln Val Arg 820 825 830 Asp Leu Gln Glu Ser Leu Thr Ser Glu Ser 840 835

<210> 3872

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3872

Met Leu Trp Arg Lys Gly Met Arg Ser Gln Gly Ser Glu Val Arg Pro

1 5 10 15

Ala He Pro Gln Val Cys Gly Trp Ala Arg Arg Gln Ala Pro Lys Asn 20 25 30

Leu Thr Cys Asp Pro Gly Cys Pro His Arg Leu Lys Gly Leu Arg Asp 35 40 45

Leu Glu Thr Gly Asn Met Val Cys Gly Gly Pro Val Asp Pro Gly Val
50 55 60

Gly Val Arg Asp Gly Asp Arg His Arg Asp Ile Leu Arg Ala Arg Asp
65 70 75 80

Arg Lys Thr Lys Asn Asp Arg Asn Arg Asp Thr Glu Arg Tyr Arg Glu

85 90 95

Gly Gln Arg Pro Arg Lys Pro Glu

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⟨210⟩ 3873
<211> 181
<212> PRT
<213> Homo sapiens
<400> 3873
Met Leu Ala Arg Pro Gly Val Glu Ala Trp Arg Arg Arg Arg Asp Ala
                                     10
Arg Leu Arg Ala Gly Val Gly Gly Ala Cys Val Ala Gly Ala Lys Ser
             20
                                 25
                                                      30
His Gly Ala Gly Leu Gly Ala Gly Arg Arg Ala Arg Ala Glu Thr His
                             40
Val Thr Ala Ala Arg Arg Arg Asp Gly Trp Asn Phe Ser Asn Pro Lys
                         55
                                             60
Ser Arg Asp Arg Pro Pro Leu Ala Cys Ser Arg Ala Leu Gln Asp Pro
65
                     70
                                          75
Leu Ala His Gly Ala Val Pro Gly Arg Pro Leu Leu Ala Thr Arg Ala
                 85
                                     90
Thr Ala Gly Leu Ser Cys Leu Glu Trp Trp Pro Pro Pro Pro Ala Gly
            100
                                105
                                                     110
Ala Gly Ala Leu Gln Gly Pro Leu Ala Tyr Cys He Val Val Ala Arg
                            120
                                                 125
Arg Leu Leu Ala Ala Thr Asp Ile Ala Gly Ser Ser Cys Ser Arg Cys
                        135
                                             140
Thr Gly Ser Thr Pro Ala Cys Trp Gln Leu Gly Thr Leu Leu Gly Pro
145
                    150
                                        155
                                                             160
Leu Ala Pro Thr Val Val Ala Asp Tyr Arg Glu Thr Pro Gly Ala Tyr
                165
                                    170
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<210> 3874

<211> 1014

<212> PRT

<213> Homo sapiens

Ala Val Trp Ser Gln

<400)> 38	374													
Met	Pro	Thr	Arg	Ser	Arg	Arg	Lys	Ala	Arg	Val	Gly	Lys	Tyr	G1y	Asp
l				5					10					15	
Ser	Met	Thr	Glu	Ala	Asp	Lys	Thr	Lys	Pro	Leu	Ser	Lys	Val	Ser	Ser
			20					25					30		
11e	Ala	Val	Gln	Thr	Val	Ala	Glu	Пе	Ser	Val	Gln	Thr	Glu	Pro	Val
		35					40					45			
Gly	Thr	He	Arg	Thr	Pro	Ser	lle	Arg	Ala	Arg	Val	Asp	Ala	Lys	Val
	50					55					60				
Glu	Ile	He	Lys	His	He	Ser	Ala	Pro	Glu	Lys	Thr	Tyr	Lys	Gly	Gly
65					70					75					80
Ser	Leu	Gly	Cys	Gln	Thr	Glu	Ala	Asp	Ser	Asp	Thr	Gln	Ser	Pro	Gln
				85					90					95	
Tyr	Leu	Ser	Ala	Thr	Ser	Pro	Pro	Lys	Asp	Lys	Lys	Arg	Pro	Thr	Pro
			100					105					110		
Leu	Glu		Gly	Tyr	Ser	Ser		Leu	Arg	Ala	Asp		Thr	Val	Gln
		115		_	_		120	_				125		_	
Leu		Pro	Ser	Pro	Pro	Lys	Ser	Pro	Lys	Val		Tyr	Ser	Pro	He
	130	,	0	Б	0.1	135			0.1	6	140	D1		13	Æ.
	Pro	Leu	Ser	Pro		Lys	Ala	Leu	Glu		Ala	Phe	Val	Pro	
145	,	D	,	D	150			C	D	155		V: 1	,		160
61u	Lys	Pro	Leu		Asp	Asp	116	Ser		GIB	Lys	vai	Leu		Pro
Δ	11-4	A 1	1	165 V-1	Dana	D	A 1	C	170	Lua	ТЬ	A 1 .s	1	175	Maa
ASP	Met	ата		vai	Pro	Pro	Ala		PTO	LyS	1411	Ата	190	мет	мет
Cln	Ara	Sor	180 Mot	Sor	Acn	Pro	Lvc	185 Pro	Lou	Sor	Pro	The		Acn	Glu
OHI	MIG	195	sie c	261	nsp	110	200		Leu	361	110	205		лэр	Oru
Sor	Ser		Ala	Pro	Phe	Gln			Glu	Glv	Tvr			lve	Glv
561	210	ni g	713 G	110	1110	215	1 9 1	1113	Ora	013	220	1113		123.0	Ory
Ser		Thr	Met	Thr	Ser	Ser	Glv	Ala	Gln	Lvs		Val	Lvs	Arg	Thr
225					230					235					240
	Pro	Asn	Pro	Pro	Pro	Glu	Glu	He	Ser	Thr	Gly	Thr	GIn	Ser	Thr
				245					250		-			255	
Phe	Ser	Thr	Met	G1y	Thr	Val	Ser	Arg	Arg	Arg	Пе	Cys	Arg	Thr	Asn
			260					265					270		

Thr	Met	Ala	Arg	Ala	Lys	Пе		Gln	Asp	11e	Asp	Arg	Glu	Leu	Asp
		275					280					285			
Leu	Val	Glu	Arg	Glu	Ser	Ala	Lys	Leu	Arg	Lys	Lys	Gln	Ala	Glu	Leu
	290					295					300				
Asp	Glu	Glu	Glu	Lys	Glu	He	Asp	Ala	Lys	Leu	Arg	Tyr	Leu	Glu	Met
305					310					315					320
Gly	lle	Asn	Arg	Arg	Lys	Glu	Ala	Leu	Leu	Lys	Glu	Arg	Glu	Lys	Arg
				325					330					335	
Glu	Arg	Ala	Tyr	Leu	Gln	Gly	Val	Ala	Glu	Asp	Arg	Asp	Tyr	Met	Ser
			340					345					350		
Asp	Ser	Glu	Val	Ser	Ser	Thr	Arg	Pro	Thr	Arg	He	Glu	Ser	Gln	His
		355					360					365			
Gly	He	Glu	Arg	Pro	Arg	Thr	Ala	Pro	Gln	Thr	Glu	Phe	Ser	G1n	Phe
	37.0					375					380				
lle	Pro	Pro	Gln	Thr	Gln	Thr	Glu	Ser	G]n	Leu	Val	Pro	Pro	Thr	Ser
385					390					395					400
Pro	Tyr	Thr	Gln	Tyr	Gln	Tyr	Ser	Ser	Pro	Ala	Leu	Pro	Thr	Gln	Ala
				405					410					415	
Pro	Thr	Ser	Tyr	Thr	Gln	Gln	Ser	His	Phe	Glu	Gln	Gln	Thr	Leu	Tyr
			420					425					430		
His	Gln	Gln	Val	Ser	Pro	Tyr	Gln	Thr	Gln	Pro	Thr	Phe	G1n	Ala	Va]
		435					440					445			
Ala	Thr	Met	Ser	Phe	Thr	Pro	Gln	Val	G] n	Pro	Thr	Pro	Thr	Pro	Gln
	450					455					460				
Pro	Ser	Tyr	Gln	Leu	Pro.	Ser	Gln	Met	Met	Val	Пе	G1n	Gln	Lys	Pro
465					470					475					480
Arg	Gln	Thr	Thr	Leu	Tyr	Leu	Glu	Pro	Lys	He	Thr	Ser	Asn	Tyr	Glu
				485					490					495	
Val	He	Arg	Asn	Gln	Pro	Leu	Met	He	Ala	Pro	Val	Ser	Thr	Asp	Asn
			500					505					510		
Thr	Phe	Ala	Val	Ser	His	Leu	Gly	Ser	Lys	Tyr	Asn	Ser	Leu	Asp	Leu
		515					520					525			
Arg	Пе	Gly	Leu	Glu	Glu	Arg	Ser	Ser	Met	Ala	Ser	Ser	Pro	He	Ser
	530					535					540				
Ser	lle	Ser	Ala	Asp	Ser	Phe	Tyr	Ala	Asp	He	Asp	His	His	Thr	Pro
545					550					555					560

Arg	Asn	Tyr	Val	Leu 565	He	Asp	Asp	He	GIy 570	Glu	He	Thr	Lys	G1y 575	Thr
A 1 a	Ala	Lou	Sor		Ala	Dho	Sor	Lou		Clu	Lvc	Acn	Lou		Lve
MIC	Ala	Leu	580	1113	Mid	THE	561	585	1113	Oju	rys	nsp	590	561	Lys
Thr	Asp	Arg	Leu	Leu	Arg	Thr	Thr	Glu	Thr	Arg	Arg	Ser	Gln	Glu	Va]
		595					600					605			
Thr	Asp	Phe	Leu	Ala	Pro	Leu	Gln	Ser	Ser	Ser	Arg	Leu	His	Ser	Tyr
	610					615					620				
Val	Lys	Ala	Glu	Glu	Asp	Pro	Met	Glu	Asp	Pro	Tyr	Glu	Leu	Lys	Leu
625	;				630					635					640
Lei	Lys	His	Gln	He	Lys	G1n	Glu	Phe	Arg	Arg	Gly	Thr	Glu	Ser	Leu
				645					650					655	
Asp	His	Leu	Ala	Gly	Leu	Ser	His	Tyr	Tyr	His	Ala	Asp	Thr	Ser	Tyr
			660					665					670		
Arg	His	Phe	Pro	Lys	Ser	Glu	Lys	Tyr	Ser	He	Ser	Arg	Leu	Thr	Leu
		675					680	•				685			
Glu	Lys	Gln	Ala	Ala	Lys	Gln	Leu	Pro	Ala	Ala	Пе	Leu	Tyr	Gln	·Lys
	690					695					700				
Glr	Ser	Lys	His	Lys	Lys	Ser	Leu	He	Asp	Pro	Lys	Met	Ser	Lys	Phe
705	;				710					715					720
Ser	Pro	He	Gln	Glu	Ser	Arg	Asp	Leu	Glu	Pro	Asp	Tyr	Ser	Ser	Tyr
				725					730					735	
Met	Thr	Ser	Ser	Thr	Ser	Ser	He	G] y	Gly	He	Ser	Ser	Arg	Ala	Arg
			740					745					750		
Let	Leu	Gln	Asp	Лsp	Ile	Thr	Phe	Gly	Leu	Arg	Lys	Asn	He	Thr	Asp
		755					760					765			
Glr	Gln	Lys	Phe	Met	Gly	Ser	Ser	Leu	Gly	Thr	Gly	Leu	Gly	Thr	Leu
	770					775					780				
61 _y	Asn	Thr	He	Arg	Ser	Ala	Leu	G1n	Asp	Glu	Ala	Asp	Lys	Pro	Tyr
785	•				790					795					800
Sei	Ser	Gly	Ser	Arg	Ser	Arg	Pro	Ser	Ser	Arg	Pro	Ser	Ser	Va]	Tyr
				805					810					815	
61 y	Leu	Asp	Leu	Ser	lle	Lys	Arg	Asp	Ser	Ser	Ser	Ser	Ser	Leu	Arg
			820					825					830		
Leu	Lys	Ala	Gln	Glu	Ala	Glu	Ala	Leu	Asp	Va1	Ser	Phe	Ser	His	Ala

Ser Ser Ser Ala Arg Thr Lys Pro Thr Ser Leu Pro Ile Ser Gln Ser Arg Gly Arg Ile Pro Ile Val Ala Gln Asn Ser Glu Glu Glu Ser Pro Leu Ser Pro Val Gly Gln Pro Met Gly Met Ala Arg Ala Ala Ala Gly Pro Leu Pro Pro Ile Ser Ala Asp Thr Arg Asp Gln Phe Gly Ser Ser His Ser Leu Pro Glu Val Gln Gln His Met Arg Glu Glu Ser Arg Thr Arg Gly Tyr Asp Arg Asp lle Ala Phe lle Met Asp Asp Phe Gln His Ala Met Ser Asp Ser Glu Gly Lys Leu Gly Leu Lys Leu Pro Cys Tyr Ser Gln Asn Ser Asn Ser Tyr Phe Ser Ala Cys Leu Ile Ser Leu Leu Gln Arg Cys Ile Leu Leu Phe Leu Val Cys Leu Leu His Val Tyr Phe Asn Phe Ile Ser Cys Lys Trp Lys Phe Tyr His Val Tyr Arg Phe Cys Ser Met Leu Phe Phe 11e

<210> 3875

<211> 166

<212> PRT

<213> Homo sapiens

<400> 3875

 Met Thr Val Val Val Pro Leu Ile Ile Gly Gln Ile Val Arg Arg Tyr

 1
 5
 10
 15

 Ile Lys Asp Trp Leu Glu Arg Lys Lys Pro Pro Phe Gly Ala Ile Ser
 20
 25
 30

 Ser Ser Val Leu Leu Met Ile Ile Tyr Thr Thr Phe Cys Asp Thr Phe

		35					40					45			
Ser	Asn	Pro	Asn	He	Asp	Leu	Asp	Lys	Phe	Ser	Leu	Val	Leu	He	Leu
	50					55					60				
Phe	Пе	He	Phe	Ser	He	Ġln	Leu	Ser	Phe	Met	Leu	Leu	Thr	Phe	He
65					70					75					80
Phe	Ser	Thr	Arg	Asn	Asn	Ser	Gly	Phe	Thr	Pro	Ala	Asp	Thr	Va]	Ala
				85					90					95	
Ile	He	Phe	Cys	Ser	Thr	His	Lys	Ser	Leu	Thr	Leu	Gly	He	Pro	Met
			100					105					110		
Leu	Lys	Ile	Val	Phe	Ala	Gly	His	Glu	His	Leu	Ser	Leu	He	Ser	Val
		115					120					125			
Pro	Leu	Leu	He	Tyr	His	Pro	Ala	Gln	Πe	Leu	Leu	Gly	Ser	Val	Leu
	130					135					140				
Va]	Pro	Thr	Пе	Lys	Ser	Trp	Met	Val	Ser	Arg	Gln	Lys	Gly	Val	Lys
145					150					155					160
Leu	Thr	Arg	Pro	Thr	Va]										
				165											

<210> 3876

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3876

Met Ser Trp Thr Phe Arg Gly Gly Ser Ser Trp Thr Cys Leu Gly Val
1 5 10 15

Gly Lys Ser Val Leu Leu Ala Pro Tyr Gly Ala Ser Cys Leu Pro Leu 20 25 30

Trp Leu Leu His Ser Cys Thr His Pro Thr Arg Pro Gly Leu Thr His
35 40 45

Gly Glu Ser Trp Leu Thr Ala Ile Cys Leu Phe Gly Ser Ser Val Pro 50 55 60

Leu Gln Thr Trp Val Phe Ser Val Gly Val Ser Lys Gly Phe Lys Leu 65 70 75 80

Asn Pro Gly Gly Leu Phe Ser Pro Asp Asp Glu Cys Cys Trp Ala Cys

Thr lle Tyr Asp Phe Val Gly His Thr Gly Thr Trp Asn Pro Val Val Ala Trp Tyr Pro Val Val Lys His Ser lle Glu Ser Gly Gln Gly Thr l15
Leu Lys Val Ala Ser Asn Arg Gly His Val Ser Leu Leu Trp Met Thr 130

<210> 3877

<211> 149

<212> PRT

<213> Homo sapiens :

<400> 3877

Met Ala Val Ser Ser Gly Pro Pro Arg Pro Ser Gln Trp Glu Pro Arg

1 5 10 15

Leu Pro Ala Arg Ala Asp Ser Ala His Gly Ala Cys Pro Gln Pro Val 20 25 30

Gly Ser Pro Ala Pro Ala Gly Val Gly Lys His Arg Leu Pro Val Leu 35 40 45

Thr Gln Pro Ser Ala Ser Ser Ser Cys Pro Leu Trp Ser Gly Ala Ser 50 55 60

Thr Ser Lys Ala Trp Ser Val Glu Thr Ser Pro Asp Val Ser Ser Gln 65 70 75 80

Glu Phe Arg Ala Ala Ser Asn Ala Leu Leu Gly Ser Arg Ala Phe 85 90 95

Leu Gly Ala Arg Arg Arg Pro Asn Lys Ile Thr Lys His Phe Leu Glu 100 105 110

Phe Gln Lys Lys Thr Gly Glu Lys Tyr Leu Gln Val Gly Met 11e Leu 115 120 125

lle Leu Val Asp Gly Pro lle Arg Thr Leu Val Gly Lys Lys Arg Gln 130 135 140

His Lys Thr Val Arg

10

25

<210> 3878 <211> 114 <212> PRT <213> Homo sapiens <400> 3878 Met Cys Gly Pro Ser Gly Asp Gly Asp Pro Arg Cys Gly Leu Arg Asn Gln Cys Val Ser Trp Thr Leu Leu Thr Ser Lys Leu Glu Gln Lys Arg 20 His Leu Cys Gly Ala Leu Thr His Pro Arg Tyr Phe Ala Thr Ser Phe

Asn Ile Pro Ser Leu Arg Thr Gln Thr Tyr Met Gly Asp Arg Gly Val 55 50 60 Tyr Asn Pro Ile Ser Tyr Leu Tyr Thr Lys Pro Trp Ala Thr Glu Ser

40

70 75

Val Lys Phe Met Val Ile Lys Pro Leu His Arg Gly Gly Pro Val Ser 90

Pro Trp Lys His His Thr Leu Leu Pro Ala Gln Glu Val Met Glu Gly 100 105 110

Asp Gly

<210> 3879

<211> 937

<212> PRT

<213> Homo sapiens

<400> 3879

Met Gly Val Lys Lys Lys Glu Met Gln Val Ala Ala Leu Thr Ile 10

Cys His Gln Asp Leu Glu Thr Leu Lys Ser Phe Ala Asp Val Glu Gly 20 30 25

Lys Asn Leu Ala Ser Leu Leu Leu His Cys Val Gln Leu Thr Asp Gly

		35					40					45			
Val	Ser	G1n	He	His	Ty.r	11e	Lys	Gln	Пе	Val	Pro	Leu	Leu	Glu	Lys
	50					55					60				
Ala	Asp	Lys	Asn	Gly	Met	Cys	Asp	Pro	Thr	He	G1n	Ser	Cys	Leu	Asp
65					70					75					80
He	Leu	Ala	Gly	He	Tyr	Leu	Ser	Leu	Ser	Leu	Lys	Asn	Pro	Leu	Lys
				85					90					95	
Lys	Val	Leu	Ala	Ser	Ser	Leu	Asn	Ser	Leu	Pro	Asp	Phe	Phe	Leu	Pro
			100					105					110		
Glu	Ala	Met	His	Arg	Phe	Thr	Ser	Arg	Leu	Gln	Glu	Glu	Leu	Asn	Thr
		115					120					125			
Thr	Asp	Leu	Tyr	Ser	Tyr	Arg	Lys	Val	Thr	Asp	Asn	Пe	Ser	Ser	Cys
	130					135					140				
Met	Glu	Asn	Phe	Asn	Leu	G1 y	Arg	Ala	Ser	Val	Asn	Asn	Leu	Leu	Lys
145					150					155					160
Asn	Val	Leu	His		Leu	Gln	Lys	Ser		Пе	G]u	He	Leu	Glu	Glu
				165					170					175	
Asn	Arg	Lys		Ala	Gly	Asn	His		He	Gln	Thr	Gln		Met	Asn
			180	~ 1				185					190		
Asp	Leu		Val	Gly	He	Arg		Ser	Met	Met	Leu		GIn	Lys	Val
C1		195	6.1	6.1			200 T		Tr.	C		205	D	7.1	T
GIn		Phe	61n	61y	Asn	Leu	Trp	Lys	ihr	Ser		Ser	Pro	11e	Trp
C1	210	Mad	Com	C1	1	215	C	11.	Dl. a	Tl. 24	220	V = 1	1	C	Λ
	ASII	мет	Cys	GIŸ		Leu	ser	116	rne		Lys	vai	Leu	ser	
225	Acn	Lou	Lau	Ara	230	Val	Cln	Son	Tha	235 Sor	Cly	Lou	Λlο	Πa	240
Asp	лър	Leu	Leu	245	1111	vai	0111	361	250		Gly	Leu	VIa	255	116
ا ما	Pho	مال	lve		Mot	Phe	Hic	Pro			lve	مال	Pro		Lau
i,c u	1110	.110	260	1111	MC C	THE	1113	265	501	ora	Lys	.1.1.0	270	111.3	LCu
lle	Ser	Ser		Len	Leu	Arg	Ser		Asn	Cvs	Thr	Ser		Pro	Glu
	501	275	, 0.	БСС	1300	,,,,	280	, (1)	чор	0,0		285	, , ,	,,,	Ola
Tro	Phe		Ser	Ser	Cvs	Arg		l.eu	Cvs	Cvs	Glv		He	Ser	Gln
F	290		•		-,-	295			- 2	- , -	300				
Ser		Val	Leu	Phe	Leu	Cys	Gln	Glv	Thr	Leu		Met	Leu	Asp	Tro
305					310	,		•		315				•	320
Gln	Asn	Gly	Ser	Met		Arg	Ser	Gly	G] u		Leu	Leu	Leu	Asp	

Ala His Val Leu Phe 340 Glu Met Phe Leu Ser 355			335
Glu Met Phe Leu Ser	Thr Leu Ser Se	r Gln Ile Lys	Glu Pro Thr Leu
	34	5	350
355	Arg Ile Leu Al	a Ser Trp Thr	Asn Ser Ala lle
	360		365
Gln Val Leu Glu Ser	Ser Ser Pro Se	r Leu Thr Asp	Ser Leu Asn Gly
370	375	380	
Asn Ser Ser lle Val	Gly Arg Leu Le	u Glu Tyr Val	Tyr Thr His Trp
385	390	395	400
Glu His Pro Leu Asp	Ala Leu Arg Hi	s Gln Thr Lys	Ile Met Phe Lys
405		410	415
Asn Leu Leu Gln Met	His Arg Leu Th	r Val Glu Gly	Ala Asp Phe Val
420	42	5	430
Pro Asp Pro Phe Phe	Val Glu Leu Th	r Glu Ser Leu	Leu Arg Leu Glu
435	440		445
Trp His Ile Lys Gly	Lys Tyr Thr Cy	s Leu Gly Cys	Leu Val Glu Cys
450	455	460	
lle Gly Val Glu His	Ile Leu Ala Il	e Asp Lys Thr	Ile Pro Ser Gln
465	470	475	480
lle leu Glu Val Met	Gly Asp Gln Se	r Leu Val Pro	Tyr Ala Ser Asp
110 200 010 (01 ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			.,
485		490	495
			495
485 Leu Leu Glu Thr Met 500	Phe Arg Asn Hi	s Lys Ser His 5	495 Leu Lys Ser Gln 510
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser	Phe Arg Asn Hi 50 Trp lle Asp Gl	s Lys Ser His 5	495 Leu Lys Ser Gln 510 Thr Trp Val Ser
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515	Phe Arg Asn Hi 50 Trp 11e Asp G1 520	s Lys Ser His 5 n Trp His Glu	Leu Lys Ser Gln 510 Thr Trp Val Ser 525
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile	Phe Arg Asn Hi 50 Trp 11e Asp G1 520 Leu Cys Glu G1	s Lys Ser His 5 n Trp His Glu y Asn Leu Asp	Leu Lys Ser Gln 510 Thr Trp Val Ser 525
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile 530	Phe Arg Asn Hi 50 Trp 11e Asp G1 520 Leu Cys G1u G1 535	s Lys Ser His 5 n Trp His Glu y Asn Leu Asp 540	Leu Lys Ser Gln 510 Thr Trp Val Ser 525 Gln Lys Ser Tyr
Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile 530 Val 11e Asp Tyr Tyr	Phe Arg Asn Hi 50 Trp 11e Asp G1 520 Leu Cys G1u G1 535 Leu Pro Lys Le	s Lys Ser His 5 n Trp His Glu y Asn Leu Asp 540 tu Leu Ser Tyr	Leu Lys Ser Gln 510 Thr Trp Val Ser 525 Gln Lys Ser Tyr Ser Pro Glu Ser
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile 530 Val 11e Asp Tyr Tyr 545	Phe Arg Asn Hi 50 Trp 11e Asp G1 520 Leu Cys G1u G1 535 Leu Pro Lys Le 550	s Lys Ser His 5 n Trp His Glu y Asn Leu Asp 540 tu Leu Ser Tyr 555	495 Leu Lys Ser Gln 510 Thr Trp Val Ser 525 Gln Lys Ser Tyr Ser Pro Glu Ser 560
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile 530 Val 11e Asp Tyr Tyr 545 Leu Gln Tyr Met Val	Phe Arg Asn Hi 50 Trp 11e Asp 61 520 Leu Cys Glu Gl 535 Leu Pro Lys Le 550 Lys 11e Leu Gl	s Lys Ser His f n Trp His Glu y Asn Leu Asp 540 tu Leu Ser Tyr 555 n Thr Ser His	Leu Lys Ser Gln 510
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile 530 Val Ile Asp Tyr Tyr 545 Leu Gln Tyr Met Val 565	Phe Arg Asn Hi	s Lys Ser His Trp His Glu y Asn Leu Asp 540 tu Leu Ser Tyr 555 n Thr Ser His	Leu Lys Ser Gln 510 For Ser Gln Thr Trp Val Ser Ser Tyr Ser Pro Glu Ser 560 Asp Ala Lys Thr 575 For For For
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile 530 Val 11e Asp Tyr Tyr 545 Leu Gln Tyr Met Val 565 Gly Gln Glu Gln Ser	Phe Arg Asn Hi	s Lys Ser His n Trp His Glu y Asn Leu Asp 540 tu Leu Ser Tyr 555 n Thr Ser Ile 570 tu Gly Ser Cys	Leu Lys Ser Gln 510
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile 530 Val Ile Asp Tyr Tyr 545 Leu Gln Tyr Met Val 565 Gly Gln Glu Gln Ser 580	Phe Arg Asn Hi	s Lys Ser His n Trp His Glu y Asn Leu Asp 540 tu Leu Ser Tyr 555 n Thr Ser 11e 570 tu Gly Ser Cys	Leu Lys Ser Gln 510 Frage Ser Gln Thr Trp Val Ser Ser 525 Frage Ser Tyr Ser Pro Glu Ser 560 Asp Ala Lys Thr 575 Asn Ser Arg Gly 590 Frage Arg Gly
485 Leu Leu Glu Thr Met 500 Thr Ala Glu Ser Ser 515 Pro Leu Leu Phe Ile 530 Val 11e Asp Tyr Tyr 545 Leu Gln Tyr Met Val 565 Gly Gln Glu Gln Ser	Phe Arg Asn Hi	s Lys Ser His n Trp His Glu y Asn Leu Asp 540 tu Leu Ser Tyr 555 n Thr Ser 11e 570 tu Gly Ser Cys	Leu Lys Ser Gln 510 Frage Ser Gln Thr Trp Val Ser Ser 525 Frage Ser Tyr Ser Pro Glu Ser 560 Asp Ala Lys Thr 575 Asn Ser Arg Gly 590 Frage Arg Gly

	610					615					620				
Arg	He	Lys	Gln	Gly	Leu	Пе	His	Gln	His	Cys	Gln	Val	Arg	He	Asp
625					630					635					640
Thr	Leu	Gly	Leu	Leu	Cys	Glu	Ser	Asn	Arg	Ser	Thr	Glu	Пе	Val	Ser
				645					650					655	
Met	Glu	Glu	Met	Gln	Trp	He	Gln	Phe	Phe	He	Thr	Tyr	Asn	Leu	Asn
			660					665					670		
Ser	Gln	Ser	Pro	G1 y	Val	Arg	Gln	Gln	He	Cys	Ser	Leu	Leu	Lys	Lys
		675					680					685			
Leu	Phe	Cys	Arg	He	Gln	Glu	Ser	Ser	Gln	Val	Leu	Tyr	Lys	Leu	Glu
	690					695					700				
Gln	Ser	Lys	Ser	Lys	Arg	Glu	Pro	Glu	Asn	Glu	Leu	Thr	Lys	Gln	His
705					710					715					720
Pro	Ser	Va]	Ser	Leu	Gln	Gln	Tyr	Lys	Asn	Phe	Met	Ser	Ser	He	Cys
				725					730					735	
Asn	Ser	Leu	Phe	Glu	Ala	Leu	Phe	Pro	Gly	Ser	Ser	Tyr	Ser	Thr	Arg
			740					745					750		
Phe	Ser	Ala	Leu	Thr	He	Leu	Gly	Ser	He	Ala	Glu	Val	Phe	His	Val
		755					760					765			
	Glu		Arg	He				Tyr	G1n	Leu	Ser		Asp	lle	Asp
	Glu 770		Arg	He				Tyr	Gln	Leu	Ser 780		Asp	lle	Asp
Pro	770	Gly			Tyr	Thr 775	Val					His			
Pro	770	Gly			Tyr	Thr 775	Val				780	His			
Pro Val 785	770 Gly	Gly Arg	Phe	Gln	Tyr Thr 790	Thr 775 Leu	Val Met	Glu	Cys	Phe 795	780	His Ser	Thr	Phe	G1u 800
Pro Val 785	770 Gly	Gly Arg	Phe	Gln	Tyr Thr 790	Thr 775 Leu	Val Met	Glu	Cys	Phe 795	780 Thr	His Ser	Thr	Phe	G1u 800
Pro Val 785 Asp	770 Gly Val	Gly Arg Lys	Phe 11e	61n Leu 805	Tyr Thr 790 Ala	Thr 775 Leu Phe	Val Met Asp	61u Leu	Cys Leu 810	Phe 795 Met	780 Thr	His Ser Leu	Thr Ser	Phe Lys 815	Glu 800 Thr
Pro Val 785 Asp	770 Gly Val	Gly Arg Lys	Phe 11e	61n Leu 805	Tyr Thr 790 Ala	Thr 775 Leu Phe	Val Met Asp	61u Leu	Cys Leu 810	Phe 795 Met	780 Thr Lys	His Ser Leu	Thr Ser	Phe Lys 815	Glu 800 Thr
Pro Val 785 Asp	770 Gly Val	Gly Arg Lys His	Phe 11e Phe 820	Gln Leu 805 Gln	Tyr Thr 790 Ala Asp	Thr 775 Leu Phe Ser	Val Met Asp Gly	Glu Leu Lys 825	Cys Leu 810 Leu	Phe 795 Met Gln	780 Thr Lys	His Ser Leu Leu	Thr Ser Phe 830	Phe Lys 815 Gln	Glu 800 Thr
Pro Val 785 Asp	770 Gly Val	Gly Arg Lys His	Phe 11e Phe 820	Gln Leu 805 Gln	Tyr Thr 790 Ala Asp	Thr 775 Leu Phe Ser	Val Met Asp Gly	Glu Leu Lys 825	Cys Leu 810 Leu	Phe 795 Met Gln	780 Thr Lys Gly	His Ser Leu Leu	Thr Ser Phe 830	Phe Lys 815 Gln	Glu 800 Thr
Pro Val 785 Asp Ala	770 Gly Val Val	Gly Arg Lys His Glu 835	Phe 11e Phe 820 Leu	Gln Leu 805 Gln Ser	Tyr Thr 790 Ala Asp	Thr 775 Leu Phe Ser	Val Met Asp Gly Thr 840	Glu Leu Lys 825 Lys	Cys Leu 810 Leu Pro	Phe 795 Met Gln Tyr	780 Thr Lys Gly	His Ser Leu Leu Cys 845	Thr Ser Phe 830 Val	Phe Lys 815 Gln Thr	Glu 800 Thr Ala
Pro Val 785 Asp Ala	770 Gly Val Val	Gly Arg Lys His Glu 835	Phe 11e Phe 820 Leu	Gln Leu 805 Gln Ser	Tyr Thr 790 Ala Asp	Thr 775 Leu Phe Ser	Val Met Asp Gly Thr 840	Glu Leu Lys 825 Lys	Cys Leu 810 Leu Pro	Phe 795 Met Gln Tyr	780 Thr Lys Gly	His Ser Leu Leu Cys 845	Thr Ser Phe 830 Val	Phe Lys 815 Gln Thr	Glu 800 Thr Ala
Pro Val 785 Asp Ala Ala	770 Gly Val Val Leu Tyr 850	Gly Arg Lys His Glu 835 Leu	Phe 11e Phe 820 Leu Leu	Gln Leu 805 Gln Ser	Tyr Thr 790 Ala Asp Thr	Thr 775 Leu Phe Ser Ser Leu 855	Met Asp Gly Thr 840	Glu Leu Lys 825 Lys	Cys Leu 810 Leu Pro	Phe 795 Met Gln Tyr	780 Thr Lys Gly Asp	His Ser Leu Cys 845 Leu	Thr Ser Phe 830 Val	Phe Lys 815 Gln Thr	Glu 800 Thr Ala Ala
Pro Val 785 Asp Ala Ala	770 Gly Val Val Leu Tyr 850	Gly Arg Lys His Glu 835 Leu	Phe 11e Phe 820 Leu Leu	Gln Leu 805 Gln Ser	Tyr Thr 790 Ala Asp Thr	Thr 775 Leu Phe Ser Ser Leu 855	Met Asp Gly Thr 840	Glu Leu Lys 825 Lys	Cys Leu 810 Leu Pro	Phe 795 Met Gln Tyr	780 Thr Lys Gly Asp Ala 860	His Ser Leu Cys 845 Leu	Thr Ser Phe 830 Val	Phe Lys 815 Gln Thr	Glu 800 Thr Ala Ala
Pro Val 785 Asp Ala Ala Ser Leu 865	770 Gly Val Val Leu Tyr 850 Ser	Gly Arg Lys His Glu 835 Leu Ala	Phe He 820 Leu Tyr	Gln Leu 805 Gln Ser Asn Leu	Tyr Thr 790 Ala Asp Thr Phe Thr 870	Thr 775 Leu Phe Ser Leu 855 Gln	Met Asp Gly Thr 840 lle	Glu Leu Lys 825 Lys Trp	Cys Leu 810 Leu Pro Gln Ala Leu	Phe 795 Met Gln Tyr Asp Cys 875	780 Thr Lys Gly Asp Ala 860	His Ser Leu Cys 845 Leu Asn	Thr Ser Phe 830 Val Pro Gly	Phe Lys 815 Gln Thr Ser	Glu 800 Thr Ala Ala Ser Arg 880
Pro Val 785 Asp Ala Ala Ser Leu 865 Pro	770 Gly Val Val Leu Tyr 850 Ser	Arg Lys His Glu 835 Leu Ala	Phe He 820 Leu Tyr Va]	Gln Leu 805 Gln Ser Asn Leu Val 885	Tyr Thr 790 Ala Asp Thr Phe Thr 870 Glu	Thr 775 Leu Phe Ser Leu 855 Gln Arg	Met Asp Gly Thr 840 Ile Gln Asn	Glu Leu Lys 825 Lys Trp Val	Cys Leu 810 Leu Pro Gln Ala Leu 890	Phe 795 Met Gln Tyr Asp Cys 875 Met	780 Thr Lys Gly Asp Ala 860 Asp	His Ser Leu Cys 845 Leu Asn	Thr Ser Phe 830 Val Pro Gly Lys	Phe Lys 815 Gln Thr Ser Asp Cys 895	Glu 800 Thr Ala Ala Ser Arg 880 Leu

Gln Ala Ala Ala Phe Pro Met Tyr Gly Arg Val His Cys Ile Thr Gly Ala Leu Gln Lys Leu Ser Leu Lys <210> 3880 <211> 1013 <212> PRT <213> Homo sapiens <400> 3880 Met Leu Leu Gln Leu Leu Lys Glu Ser Leu Trp Lys Ile Ser Asp Val . 5 Ala Trp Thr lle Gln Leu Thr Gln Asp Phe Lys Gln Gln Met Gly Ser Tyr Ser Asn Asn Ser Thr Glu Lys Lys Phe Leu Trp Lys Ala Leu Gly Thr Thr Leu Ala Cys Cys Gln Asp Ser Asp Phe Val Asn Ser Gln Ile Lys Glu Phe Leu Thr Ala Pro Asn Gln Leu Gly Asp Gln Arg Gln Gly lle Thr Ser lle Leu Gly Tyr Cys Ala Glu Asn His Leu Asp lle Val Leu Lys Val Leu Lys Thr Phe Gln Asn Gln Glu Lys Phe Phe Met Asn Arg Cys Lys Ser Leu Phe Ser Gly Lys Lys Ser Leu Thr Lys Thr Asp Val Met Val 11e Tyr Gly Ala Val Ala Leu His Ala Pro Lys Lys Gln Leu Leu Ser Arg Leu Asn Gln Asp IIe IIe Ser Gln Val Leu Ser Leu His Gly Gln Cys Ser Gln Val Leu Gly Met Ser Val Met Asn Lys Asp

Met Asp Leu Gln Met Ser Phe Thr Arg Ser lle Thr Glu Ile Gly lle

				180					185					190		
A l	la	Val	Gln	Лsp	Ala	Glu	Asp	Gln	Gly	Phe	Gln	Phe	Ser	Tyr	Lys	Glu
			195					200					205			
Me	еt	Leu	He	Gly	Tyr	Met	Leu	Asp	Phe	He	Arg	Asp	Glu	Pro	Leu	Asp
		210					215					220				
Se	er	Leu	Ala	Ser	Pro	He	Arg	Trp	Lys	Ala	Leu	He	Ala	He	Arg	Tyr
22	25					230					235					240
Le	eu	Ser	Lys	Leu	Lys	Pro	Gln	Leu	Ser	Leu	Gln	Asp	His	Leu	Λsn	He
					245					250					255	
Le	eu	Glu	Glu	Asn	He	Arg	Arg	Leu	Leu	Pro	Leu	Pro	Pro	Leu	G1u	Asn
				260					265					270		
Le	eu	Lys	Ser	Glu	Gly	Gln	Thr	Asp	Lys	Asp	Lys	Glu	His	11e	Gln	Phe
			275					280					285			
L	eu	Tyr	Glu	Arg	Ser	Met	Asp	Ala	Leu	Gly	Lys	Leu	Leu	Lys	Thr	Met
		290					295					300				
Me	еt	Trp	Asp	Asn	Val	Asn	Ala	Glu	Asp	Cys	Gln	Ģlu	Met	Phe	Asn	Leu
36	05					310					315					320
Le	eu	Gln	Met	Trp	Leu	Val	Ser	Gln	Lys	Glu	Trp	Glu	Arg	Glu	Arg	Ala
					325					330					335	
Ы	he	Gln	He	Thr	Ala	Lys	Val	Leu	Thr	Asn	Asp	He	Glu	Ala	Pro	Glu
				340					345					350		
A:	sn	Phe	Lys	He	Gly	Ser	Leu	Leu	Gly	Leu	Leu	Ala	Pro	His	Ser	Cys
			355					360					365			
A:	sp	Thr	Leu	Pro	Thr	He	Arg	Gln	Ala	Ala	Ala	Ser	Ser	Thr	11e	Gly
		370					375					380				
L	eu	Phe	Tyr	He	Lys	Gly	He	His	Leu	Glu	Val	Glu	Arg	Leu	Gln	Gly
38	85					390					395					400
Le	eu	Gln	Glu	Gly	Leu	Glu	Ser	Asp	Asp	Val	Gln	Val	Gln	11e	Lys	11e
					405					410					415	
Se	er	Ser	Lys	Пе	Ala	Lys	He	Val	Ser	Lys	Phe	He	Pro	Asn	Glu	Glu
				420					425					430		
].	le	Leu	Met	Phe	Leu	Glu	Glu	Met	Leu	Asp	Gly	Leu	Glu	Ser	Leu	Asn
			435					440					445			
P	ro	Thr	Cys	Thr	Lys	Ala	Cys	Gly	He	Trp	Met	He	Thr	Val	Leu	Lys
		450					455					460				
G	l n	Gln	Glv	Ala	Ala	Lau	Glin	Aen	Gln	Lou	Lau	Glu	110	Lau	Glv	The

465					470					475					480
Пe	Tyr	His	His	Met	Pro	Val	Leu	Arg	Gln	Lys	Glu	Glu	Ser	Phe	Gln
				485					490					495	
Phe	He	Leu	Glu	Ala	11e	Ser	Gln	Пе	Ala	Ser	Phe	His	Met	Asp	Thr
			500					505					510		
Val	Val	Val	Asn	Leu	Leu	Gln	Lys	Pro	Leu	Pro	Phe	Asp	Arg	Asp	Thr
		515					520					525			
Lys	Thr	Leu	Trp	Lys	Аlа	Leu	Ala	Glu	Lys	Pro	Ala	Ser	Ser	Gly	Lys
	530					535					540				
Leu	Leu	Gln	Ala	Leu	He	Asp	Lys	Leu	Glu	Thr	Glu	Leu	Glu	Asp	Asp
545					550					555					560
Пe	Ala	Arg	Val	Glu	Ala	He	Ser	Val	Ala	Cys	Ala	Met	Tyr	Glu	Val
				565					570					575	
Пe	Ser	Met	Gly	Thr	Ser	Val	Thr	G1 y	Leu	Tyr	Pro	Glu	Leu	Phe	Thr
			580					585					590		
Leu	Leu	Leu	Lys	Leu	Val	Ser	Cys	Thr	Leu	G1 y	Gln	Lys	Met	Pro	Thr
		595					600					605			
Cys	Pro	Trp	Ser	His	Arg	Arg	His	Val	Met	Gln	Gln	Gly	Glu	G1n	G1n
	610					615					620				
Gln	He	Pro	Asp	Pro	Cys	Arg	Leu	Ser	Thr		Thr	Leu	Lys	Cys	Leu
625					630					635					640
Gln	Ala	Gln	Ala	Met	Arg	Glu	Gly	Leu	Ala	Lys	Glu	Ser	Asp		G1 y
				645					650					655	
Asp	Asn	Leu		Thr	Leu	Leu	Ser		Pro	Ser	Thr	His		He	G1 y
			660					665					670		
Val	Cys	Ser	Leu	Ala	Arg	Ser		Ala	Val	Trp	Gln		Gly	Val	11e
		675					680					685			
Leu		He	Met	Glu	Gln		Leu	Ser	Ser	Leu		Ser	Ser	Ser	Glu
	690					695					700			_	
	Tyr	Arg	Пе	Thr		Ala	Ala	Phe	Phe		Glu	Leu	Met	Lys	
705			<i>a</i> .	,	710	0.1				715					720
Pro	He	Leu	Trp		His	GI y	Asn	Leu		Asn	Va]	Leu	He		Met
	C 1	C	• •	725		C	•		730	,		6.7		735	7.1
Asp	61n	Ser			Asp	Ser	Asn			Leu	Arg	GIn			He
			740					745					750		

Arg	Gly	Leu	Gly	Asn	Thr	Ala	Ser	Gly	Ala	Pro	His	Lys	Val	Lys	Lys
		755					760					765			
His	Lys	Gln	Leu	Met	Leu	Glu	Ser	Пе	Пе	Arg	Gly	Leu	Tyr	His	Leu
	770					775					780				
Ala	Arg	Thr	Glu	Val	Val	Cys	Glu	Ser	Leu	Lys	Ala	Leu	Lys	Lys	He
785					790					795					800
Leu	Glu	Leu	Leu	Thr	Asp	Arg	Asp	Val	Ser	Phe	Tyr	Phe	Lys	Glu	He
				805					810					815	
Va]	Leu	Gln	Thr	Arg	Thr	Phe	Phe	Glu	Asp	Glu	Gln	Asp	Asp	Val	Arg
			820					825					830		
Leu	Thr	Ala	He	Phe	Leu	Phe	G] u	Asp	Leu	Ala	Pro	Leu	Thr	Gly	Arg
		835					840					845			
Arg	Trp	Lys	Пе	Phe	Phe	Ala	Glu	Glu	He	Lys	Lys	Ser	Leu	Пе	Ser
	850					855					860				
Phe	Leu	Leu	His	Leu	Trp	Asp	Pro	Asn	Pro	Lys	lle	Gly	Val	Ala	Cys
865					870					875					880
Arg	Asp	Val	Leu	Met	Va]	Cys	lle	Pro	Phe	Leu	Gly	Leu	Gln	Glu	Leu
				885					890					895	
Tyr	Gly	Val	Leu	Asp	Arg	Leu	Leu	Asp	Gln	Asp	Leu	Pro	Arg	Ala	Arg
			900					905					910		
Asp	Phe	Tyr	Arg	Gln	Phe	Cys	Val	Lys	Leu	Ala	Glu	Lys	Asn	Gln	Glu
		915					920					925			
He	Leu	Trp	He	Leu	His		His	Ser	Phe	Thr	Phe	Phe	Thr	Ser	Thr
	930					935					940				
Trp	Glu	Val	He	Arg	Ser	Ala	Ala	Val	Lys		Thr	Asp	Ala	Val	Val
945					950					955					960
Leu	Asn	Leu	Thr		G]n	Tyr	Val	Glu		Leu	Asp	Arg	Glu	G1n	Leu
				965					970					975	
Thr	Thr	Arg		Gln	Ala	Leu	Arg	Gln	Asp	Pro	Cys	Пе		Val	Gln
			980					985					990		
Arg	Ala		Glu	Ala	Ala			Thr	Leu	Leu	-	-	Cys	Lys	Glu
		995					1000					1005			
Thr	Ser	He	Pro	Leu											

⟨210⟩ 3881 <211> 106 <212> PRT <213> Homo sapiens <400> 3881 Met Ile Thr Glu Ile Arg Arg Gly Ser Lys Asp Pro Leu Val Lys 10 Ala Leu Gln Leu Leu Asp Ser Pro Cys Glu Pro Ala Asp Gly Gly Leu 25 30 20 Lys Ser Glu Thr Leu Ala Lys Arg Arg Ser Ser Lys Asp Leu Leu Gly 40 45 Lys Pro Pro Gln Leu Tyr Asp Thr Pro Tyr Glu Pro Ala Glu Gly Gly 55 60 Pro Arg Ala Glu Gly Lys Ala Arg Pro Pro Asp Ser Arg Leu Pro Glu 65 70 75 Asn Asp Glu Arg Pro Ala Ala Glu Tyr Glu Gln Pro Trp Glu Trp Lys 85 90 Lys Glu Gln lie Val Arg Ala Leu Ser Val 100 105 <210> 3882 <211> 129 <212> PRT <213> Homo sapiens <400> 3882 Met Leu Thr Thr Ser Gly Gly Gly Thr Gly Pro Leu Glu Gly Leu Gln 10 15 1 Glu Glu Ala Ser Ile Ser Leu Ile Thr Ala Leu Thr Val Ser Leu Lys 25 Thr Thr Arg Pro Cys Cys Leu Phe Ile Gly Arg Val Ser Pro Ala Phe 40 45

Asp Gln Leu Leu Trp Asn Ile Ser Thr Leu Pro Cys Arg Leu Pro Cys

60

55

<210> 3883

<211> 117

<212> PRT

<213> Homo sapiens

<400> 3883

Met His Thr Lys Thr Asp Gln Ala Ala Thr Pro Asn Arg Arg Gln Met

1 5 10 15

Thr Ile Leu Leu Leu Leu Thr Ile Arg Ser Ser Thr Leu Leu His Phe 20 25 30

Gly Lys Trp Asn Lys Cys Ser Gly Glu Asp Arg Glu His Arg Thr Tyr 35 40 45

Leu Pro Gly Gly Asp 11e Lys Glu Gln Pro Gln Asp Leu Gln Asn Lys 50 55 60

Val Val Pro Met Asn Tyr Leu Cys Leu Gln Pro His Leu Ala Pro Ser 65 70 75 80

Ala Lys Pro Ala Ser Asp Lys Gln Leu Phe Pro Arg Gln Pro Pro Leu 85 90 95

Pro Ser 11e Leu Gly Thr His Pro Glu Asn Ser Pro Thr Cys Ser Thr 100 105 110

Thr Thr Lys Leu Phe

<210> 3884 <211> 108 <212> PRT <213> Homo sapiens <400> 3884 Met Gln Thr Ser Tyr Met Tyr Asn Leu lle Ser Phe Asp Lys lle lle 5 10 His Leu Cys Asn His His Leu Ser Gln Asp Leu Glu His Phe His His 20 25 Pro Glu Ser Pro Leu Ile Ile Ser Phe Gln Gln Ile Leu Thr Ser Gln Arg Gln Pro Val Thr 11e Asp Tyr Phe Thr Cys Ser Tyr Thr Ser Tyr 55 60 Val Leu Phe Cys Phe Leu Phe Lys Leu Asn Leu Thr Phe Ser IIe Leu 70 75 80 65 'Ile Tyr Phe Ala Val Cys Ile Ser Ser Ser Leu Lys Lys Phe Leu Gly 85 90 95 Cys Phe Pro Leu Tyr Glu Tyr Pro Thr Ile Asp lle 100 105 <210> 3885 <211> 499 <212> PRT <213> Homo sapiens <400> 3885 Met Phe Asp Met Gly Phe Glu Pro Gln Val Met Arg Ile Val Asp Asn 15 1 10 Val Arg Pro Asp Arg Gln Thr Val Met Phe Ser Ala Thr Phe Pro Arg 20 25 Ala Met Glu Ala Leu Ala Arg Arg Ile Leu Ser Lys Pro Ile Glu Val 40 45

Gln Val Gly Gly Arg Ser Val Val Cys Ser Asp Val Glu Gln Gln Val

60

55

He	Val	lle	Glu	Glu	Glu	Lys	Lys	Phe	Leu	Lys	Leu	Leu	Glu	Leu	Leu
65					70					75					80
Gly	His	Tyr	Gln	Glu	Ser	Gly	Ser	Va]	Пе	Пе	Phe	Val	Asp	Lys	Gln
				85					90					95	
Glu	His	Ala	Asp	Gly	Leu	Leu	Lys	Asp	Leu	Met	Arg	Ala	Ser	Tyr	Pro
			100					105					110		
Cys	Met	Ser	Leu	His	Gly	Gly	lle	Asp	Gln	Tyr	Asp	Arg	Asp	Ser	He
		115					120					125			
He		Asp	Phe	Lys	Asn		Thr	Cys	Lys	Leu	Leu	Val	Ala	Thr	Ser
	130					135					140				
	Ala	Ala	Arg	Gly		Asp	Val	Lys	His		He	Leu	Val	Val	Asn
145					150	_			_	155					160
lyr	Ser	Cys	Pro		His	Tyr	Glu	Asp		Val	His	Arg	Ala		Arg
Tl.	C1	Λ.	4.7	165		,	61	т	170	т	TD)	T) I	7.1	175	0.1
Inr	ыу	Arg		61 y	Asn	Lys	Gly		Ala	lyr	lhr	Phe		lhr	Glu
Acn	Cln.	110	180	Tun	Λlο	Clu	Aon	185	Tlo	Luc	110	Lan	190	1	C
АЅР	0111	Ala 195	AIG	1 y 1	АТА	GTy	200	116	116	Lys	Ala		GIU	Leu	ser
G1 v	Thr	Ala	Val	Pro	Pro	Aen		Glu	Lvc	Lou	Trn	205	Acn	Pho	Lve
Ory	210	MIG	, 41	110	110	215	Leu	Olu	Lys	Leu	220	261	ush	me	Lys
Asp		Gln	Lvs	Ala	Glu		Lvs	He	He	Lvs		Ser	Ser	Glv	Phe
225		·	2,0		230	01,	2,5	.110	110	235	L, S	001	501	019	240
	G1 y	Lys	Gly	Phe		Phe	Asp	Glu	Thr		Gln	Ala	Leu	Ala	
			-	245	-		•		250					255	
Glu	Arg	Lys	Lys	Leu	G1n	Lys	Ala	Ala	Leu	Gly	Leu	Gln	Asp	Ser	Asp
			260					265					270		
Asp	Glu	Asp	Ala	Ala	Val	Asp	Пе	Asp	Glu	GIn	He	Glu	Ser	Met	Phe
		275					280					285			
Asn	Ser	Lys	Lys	Arg	Va]	Lys	Asp	Met	Ala	Ala	Pro	Gly	Thr	Ser	Ser
	290					295					300				
Val	Pro	Ala	Pro	Thr	Ala	Gly	Asn	Ala	G] u	Lys	Leu	Glu	Пе	Ala	Lys
305					310					315					320
Arg	Leu	Ala	Leu	Arg	He	Asn	Ala	Gln	Lys	Asn	Leu	Gly	lle	Glu	Ser
				325					330					335	
Gln	Val	Asp	Val	Met	Gln	Gln	Ala	Thr	Asn	Ala	lle	Leu	Arg	Gly	Gly
			340					345					350		

Thr 11e Leu Ala Pro Thr Val Ser Ala Lys Thr 11e Ala Glu Gln Leu 360 Ala Glu Lys Ile Asn Ala Lys Leu Asn Tyr Val Pro Leu Glu Lys Gln 370 375 380 Glu Glu Glu Arg Gln Asp Gly Gly Gln Asn Glu Ser Phe Lys Arg Tyr 390 395 Glu Glu Glu Leu Glu lle Asn Asp Phe Pro Gln Thr Ala Arg Trp Lys 405 410 Val Thr Ser Lys Glu Ala Leu Gln Arg Ile Ser Glu Tyr Ser Glu Ala 420 425 430 Ala Ile Thr Ile Arg Gly Thr Tyr Phe Pro Pro Gly Lys Glu Pro Lys 440 445 Glu Gly Glu Arg Lys lle Tyr Leu Ala lle Glu Ser Ala Asn Glu Leu 450 455 Ala Val Gln Lys Ala Lys Ala Glu Ile Thr Arg Leu Ile Lys Glu Glu 465 470 475 480 Leu lle Arg Leu Gln Asn Ser Tyr Gln Pro Thr Asn Lys Gly Arg Tyr 485 490 Lys Val Leu

<210> 3886

<211> 671

<212> PRT

<213> Homo sapiens

<400> 3886

 Met
 Asn
 Glu
 Tyr
 Leu
 Ser
 Phe
 Lys
 Val
 Ala
 Gln
 Tyr
 Val
 Arg

 1
 5
 10
 10
 15
 15

 Glu
 Glu
 Asp
 Gly
 Val
 Glu
 Glu
 Arg
 Glu
 11e
 11e
 Lys
 Gln
 Glu
 Glu

 Glu
 Asn
 Val
 Asp
 Pro
 Asp
 Tyr
 Trp
 Glu
 Lys
 Leu
 Leu
 Arg
 His
 His
 Tyr

 Glu
 Gln
 Gln
 Gln
 Gln
 Asp
 Leu
 Ala
 Arg
 Asn
 Leu
 Gly
 Lys
 Gly
 Lys
 Arg

 60
 55
 55
 60
 60
 60
 60
 60
 60

He	Arg	Lys	Gln	Val	Asn	Tyr	Asn	Asp	Ala	Ser	Gln	Glu	Asp	Gln	Glu
65					70					75					80
Trp	Gln	Asp	Glu	Leu	Ser	Asp	Asn	Gln	Ser	Glu	Tyr	Ser	He	Gly	Ser
				85					90					95	
Glu	Asp	Glu	Asp	Glu	Asp	Phe	Glu	Glu	Arg	Pro	G1u	Gly	Gln	Ser	Gly
			1,00					105					110		
Arg	Arg	Gln	Ser	Arg	Arg	Gln	Leu	Lys	Ser	Asp	Arg	Asp	Lys	Pro	Leu
		115					120	,				125			
Pro	Pro	Leu	Leu	Ala	Arg	Val	Gly	Gly	Asn	Πe	Glu	Val	Leu	Gly	Phe
	130					135					140				
Asn	Ala	Arg	Gln	Arg	Lys	Ala	Phe	Leu	Asn	Ala	Пe	Met	Arg	Trp	G1 y
145					150					155					160
Met	Pro	Pro	Gln	Asp	Ala	Phe	Asn	Ser	His	Trp	Leu	Va]	Arg	Asp	Leu
				165					170					175	
Arg	Gly	Lys	Ser	Glu	Lys	Glu	Phe	Arg	Ala	Tyr	Val	Ser	Leu	Phe	Met
		•	180					185					190		
Arg	His	Leu	Cys	Glu	Pro	Gly	Ala	Asp	Gly	Ala	Glu	Thr	Phe	Ala	Asp
		195					200					205			
Gly	Val	Pro	Arg	Glu	Gly	Leu	Ser	Arg	Gln	His	Val	Leu	Thr	Arg	He
	210					215					220				
Gly	Val	Met	Ser	Leu	Val	Arg	Lys	Lys	Val	GIn	Glu	Phe	Glu	His	Val
225					230					235					240
Asn	Gly	Lys	Tyr		Thr	Pro	Asp	Leu		Pro	Glu	Gly	Pro	G1u	Gly
				245					250					255	
Lys	Lys	Pro		Glu	Val	He	Ser		Asp	Pro	Asn	Thr		Val	Pro
	_		260					265					270		
Ala	Ser		Ala	His	Leu	Leu		Ala	Pro	Leu	Gly		Pro	Asp	Lys
	6.1	275	0.1		61	T	280		<i>0</i> 1	,		285 B	0.1		0.1
Met		Ala	GIn	Leu	Gly		Met	Asp	Glu	Lys		Pro	Gly	Ala	GIn
	290 D		C1	D		295	V 1	C1	4.7	,	300	4.7	. 1	,	
	Pro	Arg	GIN	Pro	Leu	GIU	vai	61h	Ala		rro	Ala	Ala	Leu	
305	V = 1	C1	C	C1-	310	1	11.5 =	C1	C =	315	A 7 =	C	1	C1	320
Arg	val	oru	ser		Asp	Lys	nis	01 u		rro	ита	ser	Lys		Arg
A1.	1~	C1	C1	325	Dana	C1	C1	The	330	I	A 3 a	Dass	D _{30.0}	335	D
ита	игв	ыtо	240	игg	Pro	OIU	oju	1nr	OIU	Lys	мта	110	Pro	ser	1.0

Glu	Gln	Leu	Pro	Arg	Glu	Glu	Val	Leu	Pro	Glu	Lys	Glu	Lys	Ile	Leu
		355					360					365			
Asp	Lys	Leu	Glu	Leu	Ser	Leu	He	His	Ser	Arg	Gly	Asp	Ser	Ser	Glu
	370					375					380				
Leu	Arg	Pro	Asp	Asp	Thr	Lys	Ala	Glu	Glu	Lys	Glu	Pro	lle	Glu	Thr
385					390					395					400
G1n	Gln	Asn	G1 y	Asp	Lys	Glu	Glu	Asp	Asp	Glu	Gly	Lys	Lys	Glu	Asp
		•		405					410					415	
Lys	Lys	Gly	Lys	Phe	Lys	Phe	Met	Phe	Asn	lle	Ala	Asp	Gly	Gly	Phe
			420					425					430		
Thr	Glu	Leu	His	Thr	Leu	Trp	Gln	Asn	Glu	Glu	Arg	Ala	Ala	Val	Ser
		435					440					445			
Ser	Gly	Lys	He	Tyr	Asp	He	Trp	His	Arg	Arg	His	Asp	Tyr	Trp	Leu
	450					455					460				
Leu	Ala	Gly	He	Val	Thr	His	Gly	Tyr	Ala	Arg	Trp	Gln	Asp	He	Gln
465					470					475					480
Asn	Asp	Pro	Arg	Tyr	Met	lle	Leu	Asn	Glu	Pro	Phe	Lys	Ser	Glu	Val
				485					490					495	
His	Lys	Gly	Asn	Tyr	Leu	Glu	Met	Lys	Asn	Lys	Phe	Leu	Ala	Arg	Arg
			500					505					510		
Phe	Lys		Leu	Glu	Gln	Ala		Val	He	Glu	Glu		Leu	Arg	Arg
		515					520					525			
Ala	Ala	Tyr	Leu	Asn	Met		Gln	Asp	Pro	Asn		Pro	Ala	Met	Ala
	530					535					540				
	Asn	Ala	Arg	Leu		Glu	Val	Glu	Cys		Ala	Glu	Ser	His	
545					550					555					560
His	Leu	Ser	Lys		Ser	Leu	Ala	G1 y		Lys	Pro	Ala	Asn		Val
				565					570					575	
Leu	His	Lys		Leu	Asn	GIn	Leu		Glu	Leu	Ļeu	Ser		Met	Lys
			580					585					590	•	
Ala	Asp		Thr	Arg	Leu	Pro		Met	Leu	Ser	Arg		Pro	Pro	Val
		595		0.1			600					605			m.
Ala	Ala	Arg	Leu	GIn	Met		Glu	Arg	Ser	He		Ser	Arg	Leu	Ihr
	610	A 1	C1	۵	D	615	7.1	63	63	, ,	620	C		D	
Asn 625	Arg	.Ala	Gly	Asp	Pro 630	Ihr	11e	61n	GIn		Ser	Ser	Arg	Pro	
n/h					h (()					635					640

Asp Phe Pro Val Leu Gln Arg Ser Phe Pro Ala Glu Pro Arg Leu Pro Pro Gly His Leu Pro Asp Pro His Gly Arg Glu Lys Leu Pro Pro Phe 660

<210> 3887

<211> 794

<212> PRT

<213> Homo sapiens

<400> 3887

Met Gly Arg Lys Leu Asp Leu Ser Gly Leu Thr Asp Asp Glu Thr Glu

1 5 10 15

His Val Leu Gln Val Val Gln Arg Asp Phe Asn Leu Arg Lys Lys Glu

His Val Leu Gin Val Val Gin Arg Asp Phe Asn Leu Arg Lys Glu 20 25 30

Glu Glu Arg Leu Ser Glu Leu Lys Gln Lys Leu Asp Glu Glu Gly Ser

35 40 45

Lys Cys Ser Ile Leu Ser Lys His Gln Gln Phe Val Glu His Cys Cys 50 55 60

Met Arg Cys Cys Ser Pro Phe Thr Phe Leu Val Asn Thr Lys Arg Gln
65 70 75 80

Cys Gly Asp Cys Lys Phe Asn Val Cys Lys Ser Cys Cys Ser Tyr Gln
85 90 95

Lys His Glu Lys Ala Trp Val Cys Cys Val Cys Gln Gln Ala Arg Leu 100 105 110

Leu Arg Ala Gln Ser Leu Glu Trp Phe Tyr Asn Asn Val Lys Ser Arg 115 120 125

Phe Lys Arg Phe Gly Ser Ala Lys Val Leu Lys Asn Leu Tyr Arg Lys 130 135 140

His Arg Leu Glu Ser Gly Ala Cys Phe Asp lle Leu Gly Gly Ser Leu 145 150 155 160

Phe Glu Ser Asn Leu Glu Asn Glu Gly Ser Ile Ser Gly Ser Asp Ser 165 170 175

Thr Phe Tyr Arg Gln Ser Glu Gly His Ser Val Met Asp Thr Leu Ala 180 185 190

Val	Ala	Leu	Arg	Val	Ala	Glu	Glu	Ala	lle	Glu	Glu	Ala	lle	Ser	Lys
		195					200					205			
Ala	Glu	Ala	Tyr	Gly	Asp	Ser	Leu	Asp	Lys	Gln	Asn	Glu	Λla	Ser	Tyr
	210					215					220				
Leu	Arg	Asp	His	Lys	Glu	Glu	Leu	Thr	Glu	Glu	Leu	Ala	Thr	Thr	He
225					230					235					240
Leu	Gln	Lys	He		Arg	Lys	Gln	Lys		Lys	Ser	Glu	Gln	Gln	Va]
			_	245	_	_		_	250					255	
Glu	Glu	Glu		Gly	Trp	Pro	His		Gln	Ser	Cys	Ser		Lys	Val
4.1	٨	C1	260	Tr.	C		C	265 D	61	61	т		270	n	4.7
Ala	Asp		Gly	Ihr	Ser	Ala		Pro	Gly	Gly	lyr		Ala	Pro	Ala
Ala	Lau	275 Ten	Ana	Son	Cln	Con	280	Dho	Con	110	Than	285	C1	C L.	115
ліа	290	пъ	Alg	361	GIH	Ser 295	WIS	rne	261	116	300	GIÝ	GTU	GIU	MIA
Len		Thr	Pro	Pro	Val	Glu	Ala	Pro	Sor	Ara		Pro	Ara	Acn	Gln
305	Lyo		110	110	310	014	7170	110	561	315	0111	110	111 8	пор	320
	Gln	His	Pro	Arg		G1u	Ser	Ala	Leu		Ser	Trp	Lvs	Ser	
				325					330			•	·	335	
Asp	Arg	Leu	Asp	Glu	Thr	Asn	Leu	Ala	Pro	Val	Leu	Gln	Ser	Pro	Asp
			340					345					350		
Gly	Asn	Trp	Val	Ala	Leu	Lys	Asp	Gly	Ala	Pro	Pro	Pro	Thr	Arg	Leu
		355					360					365			
Leu	Ala	Lys	Pro	Lys	Ser	Gly	Thr	Phe	Gln	Ala	Leu	Glu	Val	Ala	Ser
	370					375					380				
Ser	Val	Ala	Ser	Ala	Tyr	Asp	Glu	Met	Gly	Ser	Asp	Ser	Glu	Glu	Asp
385					390					395					400
Phe	Asp	Trp	Ser		Ala	Leu	Ser	Lys		Cys	Pro	Arg	Ser	Arg	Ala
				405	0.1	•	0.7	_	410				_	415	
Leu	Pro	Arg		Pro	GIn	Pro	GIn		Thr	GIn	Ala	GIn		Ser	Asp
C1	C1	D	420	A 1 -	A 3 -	C	D	425	C	.1.	1	C	430		D
GIN	GIŸ	435	116	ATA	мта	Ser		ser	Ser	Ата	Leu		Pro	Asn	Pro
Glu	Ala		Cve	Sor	Acn	Ser	440 Glu	Thr	Sor	Sor	Ala	445	Sor	Sor	Ara
o i u	450	,nc t	Cya	001	nah	455	Jiu	1111	961	Jei	460	олу	JC1	261	AI g
Glu		G1 v	His	Gln	Ala	Arg	Leu	Ser	Tro	Leu		Arg	Lvs	Ala	Pro
465		-			470	J			,-	475					480

Arg	Asn	Pro	Ala	Ala 485	Glu	Lys	Met	Arg	Leu 490	His	Gly	Glu	Leu	Asp 495	Val
Asn	Phe	Asn	Pro 500	Gln	Leu	Ala	Ser	Arg 505		Thr	Ser	Asp	Ser 510		Glu
Pro	Glu	Glu 515		Pro	His	Thr	Thr 520	Asp	Arg	Arg	Ala	Arg 525		Trp	Arg
Gly	Ala 530	Arg	Leu	Gly	Ser	G1u 535	Gly	Pro	Ser	Lys	Glu 540	Pro	Ser	Ser	Pro
Ser 545	Ala	Gln	Leu	Arg	Asp 550	Leu	Asp	Thr	His	Gln 555	Val	Ser	Asp	Asp	Leu 560
Ser	Glu	Thr	Asp	Ile 565	Ser	Asn	Glu	Λla	Arg 570	Asp	Pro	Gln	Thr	Leu 575	Thr
Asp	Thr	Thr	Glu 580	Glu	Lys	Arg	Arg	Asn 585	Arg	Ĺeu	Tyr	Glu	Leu 590	Ala	Met
Lys	Met	Ser 595	Glu	Lys	Glu	Thr	Ser 600	Ser	Gly	Glu	Asp	Gln 605	Glu	Ser	Glu
Pro	Lys 610	Thr	Glu	Ser	Glu	Asn 615	Gln	Lys	Glu	Ser	Leu 620	Ser	Ser	Glu	Asp
Asn 625	Ser	Gln	Ser	Val	Gln 630	Glu	Glu	Leu	Lys	Lys 635	Val	Tyr	Leu	Ala	Ala 640
Gly	Thr	Val	Tyr	Gly 645	Leu	Glu	Thr	Gln	Leu 650	Thr	Glu	Leu	Glu	Asp 655	Ala
Ala	Arg	Cys	11e 660	His	Ser	Gly	Thr	Asp 665	Glu	Thr	His	Leu	Ala 670	Asp	Leu
G1 u	Asp	Gln 675	Val	Ala	Thr	Ala	Ala 680	Ala	Gln	Val	His	His 685	Ala	Glu	Leu
Gln	11e 690	Ser	Asp	He		Ser 695	Arg	lle	Ser	Ala	Leu 700	Thr	He	Ala	Gly
Leu 705	Asn	He	Ala	Pro	Cys 710	Val	Arg	Phe	Thr	Arg 715	Arg	Arg	Asp	Gln	Lys 720
G1n	Arg	Thr	Gln	Val 725	Gln	Thr	He	Asp	Thr 730	Ser	Arg	Gln	Gln	Arg 735	Arg
Lys	Leu	Pro	Ala 740	Pro	Pro	Val	Lys	Ala 745	Glu	Lys	He	Glu	Thr 750	Ser	Ser
Val	Thr	Thr 755	He	Lys	Thr	Phe	Asn 760	His	Asn	Phe	lle	Leu 765	G1n	Gly	Ser

Ser Thr Asn Arg Thr Lys Glu Arg Lys Gly Thr Thr Lys Asp Leu Met 770 775 775 780

Glu Pro Ala Leu Glu Ser Ala Val Met Tyr 785 790

<210> 3888

<211> 1233

<212> PRT

<213> Homo sapiens

<400> 3888

Met Gly Thr Arg Ala Phe Ser His Asp Ser IIe Phe IIe Pro Asp Gly

1 5 10 15

Gly Ala Glu Ser Glu Gln Thr Val Gln Ala Met Ser Gln Asp Asn Ile 20 25 30

Leu Gly Lys Val Lys Thr Leu Gln Gln Gln Leu Gly Lys Asn 11e Lys
35 40 45

Phe Gly Gln Arg Ser Pro Asn Ala IIe Pro Met Asn Lys Ala Asn Ser 50 55 60

Gly Glu Ala Ser Leu Glu Glu Asp Leu Phe Leu Thr Ser Pro Met Glu
65 70 75 80

11e Val Thr Gln Gln Asp 11e Val Leu Ser Asp Ala Glu Asn Lys Ser 85 90 95

Ser Asp Thr Pro Ser Ser Leu Ser Pro Leu Asn Leu Pro Gly Ala Gly
100 105 110

Ser Glu Met Glu Glu Lys Val Ala Pro Val Lys Pro Ser Arg Pro Lys 115 120 125

Arg His Phe Ser Ser Ala Gly Thr Ile Glu Ser Val Asn Leu Asp Ala 130 135 140

11e Pro Leu Ala 11e Ala Arg Leu Asp Asn Ser Ala Ala Lys His Lys 145 150 155 160

Leu Ala Val Lys Pro Lys Lys Gl
n Arg Val Ser Lys Lys His Arg Arg 165 170 175

Leu Ala Gln Asp Pro Gln His Glu Gln Gly Gly Leu Glu Ser Arg Pro 180 185 190

Cys	Leu	Asp	Gln	Asn	Gly	His	Pro	Gly	Glu	Asp	Lys	Pro	Thr	Trp	His
		195					200					205			
Glu	Glu	Glu	Pro	Asn	Pro	Leu	Asp	Ser	Glu	Glu	Glu	Arg	Arg	Arg	Gln
	210					215					220				
Glu	Asp	Tyr	Trp	Arg	Glu	Leu	Glu	Ala	Lys	Cys	Lys	Arg	Gln	Lys	Ala
225					230					235					240
Glu	Ala	Ala	Glu	Lys	Λrg	Arg	Leu	Glu	Glu	Gln	Arg	Leu	Gln	Ala	Leu
				245					250					255	
Glu	Arg	Arg	Leu	Trp	Glu	Glu	Asn	Arg	Arg	Gln	Glu	Leu	Leu	Glu	Glu
			260					265					270		
Glu	Gly	Glu	Gly	Gln	Glu	Pro	Pro	Leu	Glu	Λla	Glu	Arg	Ala	Pro	Arg
		275					280					285.			
Glu	GJu	Gln	Gln	Arg	Ser	Leu	Glu	Ala	Pro	Arg	Trp	Glu	Asp	Ala	G] u
	290					295					300				
Arg	Arg	Glu	Arg	Glu	Glu	Arg	G] u	Arg	Leu	Glu	Ala	Glu	Glu	Glu	Arg
305					310					315					320
Arg	Arg	Leu	Gln	Ala	Gln	Ala	Gln	Ala	Glu	Glu	Arg	Arg	Arg	Leu	Glu
				325					330					335	
Glu	Asp	Ala	Arg	Leu	Glu	Glu	Arg	Arg	Arg	Gln	Glu	Glu	Glu	Glu	Gly
			340					345					350		
Arg	Cys	Ala	Glu	Glu	Leu	Lys	Arg	Gln	Glu	Glu	Glu	Glu	Ala	Glu	Gly
		355					360					365			
Trp	Glu	Glu	Leu	Glu	GIn	Gln	Glu	Ala	Glu	Val	Gln	Gly	Pro	Pro	Glu
	370					375					380				
Ala	Leu	Glu	G]u	Thr	Gly	Glu	Gly	Arg	Arg	Gly	Ala	Glu	Glu	Glu	Asp
385					390					395					400
Leu	G] y	Glu	Glu	Glu	Glu	Glu	Gly	Gln	Ala	His	Leu	Glu	Asp	Trp	Arg
				405					410					415	
Gly	Gln	Leu	Ser	Glu	Leu	Leu	Asn	Asp	Phe	Glu	Glu	Arg	Leu	Glu	Asp
			420					425					430		
Gln	Glu	Arg	Leu	Lys	Pro	Glu	Gly	Gln	Arg	Glu	His	Ser	Glu	Glu	Pro
		435					440					445			
Gly		Cys	Glu	Glu	Gln	Asn	Pro	G] u	Ala	Glu	Arg	Arg	Arg	Glu	Gln
	450					455					460				
	Gly	Arg	Ser	Gly	Asp	Phe	G]n	Gly	Ala		Arg	Pro	Gly	Pro	
465					470					475					480

Glu	Lys	Arg	Glu	G1u 485	Gly	Asp	Thr	Glu	Pro 490	Leu	Leu	Lys	Gln		Gly
Pro	Val	C1n	Ala		Cla	Dro	Dro	Vo.1		A 22.00	Luc	C1	A1a	495	A 1
110	101	Oru	500	ма	OIII	110	110	505	oru	MI g	Lys	Gju	510	AJa	ATA
Len	Glu	Gln	Gly	Arg	Lve	Val	Glu		Lau	Ara	Trn	Gln		Val	Aen
Leu	Olu	515	Oly	Ai g	Lys	1 611	520	oru	Leu	Λig	пр	525	O I u	vai	Аэр
Glu	Arg		Thr	Met	Pro	Arø		Tvr	Thr	Phe	Gln		Ser	Ser	Glv
	530	01				535		.,,		1110	540	, 01	001	501	013
Gly		G1n	He	Leu	Phe		Lvs	Val	Asn	Leu		Pro	Val	Thr	Pro
545	·				550		•			555					560
Ala	Lys	Asp	Thr	Gly	Leu	Thr	Ala	Ala	Pro	Gln	Glu	Pro	Lys	Ala	Pro
				565					570					575	
Lys	Ala	Ser	Pro	Val	Gln	His	Ala	Leu	Pro	Ser	Ser	Leu	Ser	Val	Pro
			580					585					590		
His	Thr	Ala	He	Leu	Val	Thr	Gly	Ala	Gln	Leu	Cys	Gly	Pro	Ala	Va]
		595					600					605			
Asn	Leu	Ser	Gln	11e	Lys	Asp	Thr	Ala	Cys	Lys	Ser	Leu	Leu	Gly	Leu
	610					615					620				
Glu	Glu	Lys	Lys	His	Ala	Glu	Ala	Pro	Ala	Gly	Glu	Asn	Pro	Pro	Arg
625					630					635					640
Gly	Pro	Gly	Asp	Ala	Arg	Ala	Gly	Ser	Gly	Lys	Ala	Lys	Leu	Pro	G1n
				645					650					655	
Glu	Ser	Pro	Ser	Ser	Ala	Ser	Λla	Leu	Ala	Glu	Trp	Ala	Ser	He	Arg
			660					665					670		
Ser	Arg		Leu	Lys	Asn	Ala		Ser	Asp	Pro	Arg		Ser	G] u	Arg
		675					680	_				685			
Asp		Leu	Arg	Pro	Gly		Glu	Ser	Thr	Pro		Gly	Arg	Cys	Asp
C .	690	C1		61		695	TI	rs.	15		700			Di	
	Arg	01 y	Asn	GIn		Lys	Ihr	Pro	Pro		Asn	Ala	Lys	Phe	
705	Mod	Dro	A 1	Two	710	Lua	Dha	Con	Aan	715	C1	The	C1	TL	720
116	Met	110	Ala	725	0111	Lys	rne	261.	730	GLY	GIÀ	ınr	GIU	735	ser
lve	Gln	Ser	Thr		Λlα	Glu	Sor	ماد		Lve	Ara	Pro	Mot		Clv
2,5	0111	0(1	740	o, u	. 1 . 1 . 0	u u	501	745	шв	rivo	шв	110	750	ı,cu	01 y
Pro	Ser	Glu	Glu	Thr	Ala	Pro	Gln		Pro	Pro	Λla	Glv		Arø	Glu
		755					760					765	*	0	

Leu		Lys	Gly	Pro	Glu	Lys	Leu	Gly	Met	His		Glu	Pro	Ala	Asp
m.	770	0.1	0.1			775					780	_			
	Thr	Glu	61y	Cys		Phe	Ala	Lys	Asp		Pro	Ser	Phe	Leu	
785					790					795					800
Pro	Ser	Leu	Pro		Pro	Pro	Gln	Lys		Va]	Ala	His	Thr		Phe
				805					810					815	
Thr	Thr	Ser		Asp	Ser	G]u	Thr		Asn	Gly	He	Ala	Lys	Pro	Asp
			820					825					830		
Pro	Val		Pro	Gly	Gly	Glu	Glu	Lys	Ala	Ser	Pro	Phe	Gly	He	Lys
		835					840					845			
Leu	Arg	Arg	Thr	Asn	Tyr	Ser	Leu	Arg	Phe	Asn	Cys	Asp	Gln	Gln	Ala
	850					855					860				
G] u	Gln	Lys	Lys	Lys	Lys	Arg	His	Ser	Ser	Thr	Gly	Asp	Ser	Ala	Asp
865					870					875					880
Ala	G] y	Pro	Pro	Ala	Ala	Gly	Ser	Ala	Arg	Gly	Glu	Lys	Glu	Met	Glu
				885					890					895	
Gly	Val	Ala	Leu	Lys	His	Gly	Pro	Ser	Leu	Pro	Gln	Glu	Arg	Lys	Gln
			900					905					910		
Ala	Pro	Ser	Thr	Arg	Arg	Asp	Ser	Ala	Glu	Pro	Ser	Ser	Ser	Arg	Ser
		915					920					925			
Val	Pro	Val	Ala	His	Pro	Gly	Pro	Pro	Pro	Ala	Ser	Ser	Gln	Thr	Pro
	930					935					940				
Ala	Pro	Glu	His	Asp	Lys	Ala	Ala	Asn	Lys	Met	Pro	Leu	Ala	Gln	Lys
945					950					955					960
Pro	Ala	Leu	Ala	Pro	Lys	Pro	Thr	Ser	61n	Thr	Pro	Pro	Ala	Ser	Pro
				965					970					975	
Leu	Ser	Lys	Leu	Ser	Arg	Pro	Tyr	Leu	Val	G] u	Leu	Leu	Ser	Arg	Arg
			980					985					990		
Ala	Gly	Arg	Pro	Asp	Pro	Glu	Pro	Ser	Glu	Pro	Ser	Lys	Glu	Asp	Gln
		995				1	000]	005			
G]u	Ser	Ser	Asp	Arg	Arg	Pro	Pro	Ser	Pro	Pro	Gly	Pro	G] u	Glu	Arg
]	010]	015				1	020				
Lys	Gly	Gln	Lys	Arg	Asp	Glu	Glu	Glu	Glu	Ala	Thr	Glu	Arg	Lys	Pro
1025	5			j	030				j	035				1	040
Ala	Ser	Pro	Pro	Leu	Pro	Ala	Thr	Gln	Gln	Glu	Lys	Pro	Ser	G1n	Thr
			l	045				I	050				1	055	

Pro Glu Ala Gly Arg Lys Glu Lys Pro Met Leu Gln Ser Arg His Ser 1060 1065 Leu Asp Gly Ser Lys Leu Thr Glu Lys Val Glu Thr Ala Gln Pro Leu 1080 1085 Trp lle Thr Leu Ala Leu Gln Lys Gln Lys Gly Phe Arg Glu Gln Gln 1090 1095 1100 Ala Thr Arg Glu Glu Arg Lys Gln Ala Arg Glu Ala Lys Gln Ala Glu 1110 1115 Lys Leu Ser Lys Glu Asn Val Ser Val Ser Val Gln Pro Gly Ser Ser 1125 1130 1135 Ser Val Ser Arg Ala Gly Ser Leu His Lys Ser Thr Ala Leu Pro Glu 1140 1145Glu Lys Arg Pro Glu Thr Ala Val Ser Arg Leu Glu Arg Arg Glu Gln 1160 1165Leu Lys Lys Ala Asn Thr Leu Pro Thr Ser Val Thr Val Glu Ile Ser 1170 1175 1180 Asp Ser Ala Pro Pro Ala Pro Leu Val Lys Glu Val Thr Lys Arg Phe 1190 1195 Ser Thr Pro Asp Ala Ala Pro Val Ser Thr Glu Pro Ala Trp Leu Ala 1205 1210 Leu Ala Lys Arg Lys Ala Lys Ala Trp Ser Asp Cys Pro Gln IIe 11e 1220 1225 1230 Lys

<210> 3889

<211> 133

<212> PRT

<213> Homo sapiens

<400> 3889

Met Leu Thr Asp Val Cys His Leu Val Thr Ser Phe Gln Val Phe Pro

1 5 10 15

Pro Pro Leu Ser Phe Leu Ser Ser Leu Leu Cys Cys Phe Lys He Cys

20 25 30

Met Ser Leu Thr Gly Met Pro Val Thr Ser Ala Asn Phe Val Ser Ser Leu Pro His Glu Met 11e Leu Leu Lys Gly Thr Arg Tvr Val Ser 11e 50-55 Cys Thr Ser Leu Lys Ala Ser Gly Tyr Gly Pro Leu Thr His Trp Ser 70 Trp Leu Gln Asn Asn Ser Ala Glu Thr Ser Phe Gln Leu Lys 11e Pro 85 90 Ser Asn Val Thr Gln Gly Arg Asn Ile Ala Pro lle lle Lys Gly Gly 100 105 110 Asn Gly Gln Arg Gly Ser Ala Ala Gly Ser Gln Lys Arg Lys Val Arg 115 120 125 Val Leu Phe Ile Cys 130

<210> 3890

<211> 172

<212> PRT

<213> Homo sapiens

<400> 3890

Met Gln Leu His Asp Arg Gly Leu Arg His Leu Phe Ser Ala Pro Ala . 10 5 Gly Ser Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln 11e 20 25 Asn Gly Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln 11e 40 Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln Ile 50 55 Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Ser Gln Met

75

Asn Arg Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Ser Gln He 90

Asn Gly Arg Cys Asn Ser Ser Ala Gly Gly Arg Ser Tyr Pro Gln 11e 100 105 110

<210> 3891

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3891 Met Ala Phe Ser Ser Gln Ala Pro Tyr Leu Ser Pro Ala Val Pro Phe Ser Gly Thr lle Gln Gly Gly Leu Gln Asp Gly Leu Gln lle Thr Val Asn Gly Thr Val Leu Ser Ser Ser Gly Thr Arg Phe Ala Val Asn Phe Gln Thr Gly Phe Ser Gly Asn Asp Ile Ala Phe His Phe Asn Pro Arg Phe Glu Asp Gly Gly Tyr Val Val Cys Asn Thr Arg Gln Asn Gly Ser Trp Gly Pro Glu Glu Arg Lys Thr His Met Pro Phe Gln Lys Gly Met Pro Phe Asp Leu Cys Phe Leu Val Gln Ser Ser Asp Phe Lys Val Met Val Asn Gly 11e Leu Phe Val Gln Tyr Phe His Arg Val Pro Phe His Arg Val Asp Thr Ile Ser Val Asn Gly Ser Val Gln Leu Ser Tyr

lle Ser Phe Gln Pro Pro Gly Val Trp Pro Ala Asn Pro Ala Pro Ile

Thr Gln Thr Val 11e His Thr Val Gln Ser Ala Pro Gly Gln Met Phe Ser Thr Pro Ala Ile Pro Pro Met Met Tyr Pro His Pro Ala Tyr Pro Met Pro Phe lle Thr Thr lle Leu Gly Gly Leu Tyr Pro Ser Lys Ser lle Leu Leu Ser Gly Thr Val Leu Pro Ser Ala Gln Arg Phe His lle Asn Leu Cys Ser Gly Asn His Ile Ala Phe His Leu Asn Pro Arg Phe Asp Glu Asn Ala Val Val Arg Asn Thr Gln Ile Asp Asn Ser Trp Gly Ser Glu Glu Arg Ser Leu Pro Arg Lys Met Pro Phe Val Arg Gly Gln Ser Phe Ser Val Trp lle Leu Cys Glu Ala His Cys Leu Lys Val Ala Val Asp Gly Gln His Leu Phe Glu Tyr Tyr His Arg Leu Arg Asn Leu Pro Thr Ile Asn Arg Leu Glu Val Gly Gly Asp Ile Gln Leu Thr His Val Gln Thr

<210> 3892

<211> 209

<212> PRT

<213> Homo sapiens

<400> 3892

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Arg lle Trp Phe Ser Leu His Val Phe Gly Val Cys Ala Tyr Arg Cys 55 Ala Trp Cys Gly Leu Ser Pro Arg Pro Val Cys Lys Arg His Pro Thr 70 75 Gln Arg Pro Arg Gln Asp Pro Gly Leu Trp Ala Val Val Pro Gly Leu 90 Pro Leu Gln Gly Arg Cys Val Leu Leu Arg Glu His Pro Cys Leu Gly 105 Ser Asn Pro Gly Ser Gly Arg Gln Val Val Gly Val Ala Ala Ser Ser 115 120 125 Ala Ser Leu Asp Asp Ala Gln Glu His Ala Gln Ser Gln Arg Ala Gln 130 135 140 Leu Leu Gly Ser Leu Thr Leu Gly Trp Ala Leu Gly Arg Gln Pro Phe 150 155 Gly Glu Cys Val Leu Met Val Val Ser Gly Val Ser Leu Thr Asn Asn 165 170 175 Pro Pro Cys Pro Leu Asp Thr Gly Val Pro Ser Ser Leu Ala Val Phe 185 Leu Ile Arg Val Pro His Arg Pro Thr Ala Arg Cys Val Ser Pro Asp 195 200 205 Leu

<210> 3893

<211> 465

<212> PRT

<213> Homo sapiens

<400≻ 3893

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Glu Lys Lys Phe Asp Glu Ala Leu Lys Leu Arg Gly Arg Ser Phe Met

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Asn	Asn	Trp	Glu	Val	Tyr	Lys	Leu	Leu	Λla	His	Val	Arg	Pro	Pro	Val
65					70					75					80
Ser	Lys	Ser	Gly	Ser	His	Thr	Val	Ala	Val	Met	Asn	Val	Gly	Ala	Pro
				85					90					95	
Ala	Ala	Gly	Met	Asn	Ala	Ala	Val	Arg	Ser	Thr	Val	Arg	lle	Gly	Leu
			100					105					110		
He	Gln	Gly	Asn	Arg	Val	Leu	Val	Val	His	Asp	Gly	Phe	Glu	Gly	Leu
		115					120					125			
Ala	Lys	Gly	Gln	He	Glu	Glu	Ala	Gly	Trp	Ser	Tyr	Val	Gly	Gly	Trp
	130					135					140				
Thr	Asp	Gln	Gly	Gly	Ser	Lys	Leu	Gly	Thr	Lys	Arg	Thr	Leu	Pro	Lys
145					150					155					160
Lys	Ser	Phe	Glu	Gln	Πe	Ser	Ala	Asn	Ile	Thr	Lys	Phe	Asn	He	Gln
				165					170					175	
Gly	Leu	Val	He	Ile	Gly	Gly	Phe	Glu	Ala	Tyr	Thr	Gly	Gly	Leu	Glu
			180					185					190		
Leu	Met	Glu	Gly	Arg	Lys	Gln	Phe	Asp	Glu	Leu	Cys	He	Pro	Phe	Val
		195					200					205			
Val	He	Pro	Ala	Thr	Val	Ser	Asn	Asn	Val	Pro	Gly	Ser	Asp	Phe	Ser
	210					215					220				
Val	Gly	Ala	Asp	Thr	Ala	Leu	Asn	Thr	He	Cys	Thr	Thr	Cys	Asp	Arg
225					230					235					240
Пе	Lys	Gln	Ser	Ala	Ala	Gly	Thr	Lys	Arg	Arg	Val	Phe	11e	11e	Glu
				245					250					255	
Thr	Met	Gly	Gly	Tyr	Cys	Gly	Tyr	Leu	Ala	Thr	Met	Ala	Gly	Leu	Ala
			260					265					270		
Ala	Gly	Ala	Asp	Ala	Ala	Tyr	He	Phe	Glu	Glu	Pro	Phe	Thr	He	Arg
		275					280					285			
Asp	Leu	Gln	Ala	Asn	Val	Glu	His	Leu	Val	Gln	Lys	Met	Lys	Thr	Thr
	290					295					300				
Val	Lys	Arg	Gly	Leu	Val	Leu	Arg	Asn	Glu	Lys	Cys	Asn	Glu	Asn	Tyr
305					310					315					320
Thr	Thr	Asp	Phe	lle	Phe	Asn	Leu	Tyr	Ser	Glu	Glu	Gly	Lys	Gly	Tle

Phe Asp Ser Arg Lys Asn Val Leu Gly His Met Gln Gln Gly Gly Ser Pro Thr Pro Phe Asp Arg Asn Phe Ala Thr Lys Met Gly Ala Lys Ala Met Asn Trp Met Ser Gly Lys Ile Lys Glu Ser Tyr Arg Asn Gly Arg Ile Phe Ala Asn Thr Pro Asp Ser Gly Cys Val Leu Gly Met Arg Lys Arg Ala Leu Val Phe Gln Pro Val Ala Glu Leu Lys Asp Gln Thr Asp Phe Glu His Arg lle Pro Lys Glu Gln Trp Trp Leu Lys Leu Arg Pro lle Leu Lys lle Leu Ala Lys Tyr Glu lle Asp Leu Asp Thr Ser Asp His Ala His Leu Glu His lle Thr Arg Lys Arg Ser Gly Glu Ala Ala Val <210> 3894 <211> 158 <212> PRT <213> Homo sapiens <400> 3894 Met Thr Asp Gly Thr Asn Trp Pro Gln Gln Ile His Ser Arg Ala Ser Thr Ser Leu Ala Ser Pro Ser His Pro Gly Leu Arg Ser Thr Gly Leu Glu Ala Gly Pro Gln Val His Arg Val Glu Ala Ala Trp Leu Gln Glu Ser Asp Gly Gly Val Arg Pro Leu Arg Leu Ser Gln Pro Ala Cys Trp

Pro Cys Leu Pro Arg His Arg Glu Gly Trp Cys Thr Ser Pro Arg Gln

70 75 Asp Cys Glu Pro Glu Arg Gly Gly Met Glu Val Glu Leu Glu Pro Cys 85 90 Pro His Leu Ser Leu Leu Ile Arg Gly Gly Pro Val Gly Phe Leu Pro 100 105 110 Ala Gly Ser Pro Arg Ala Ala Trp Lys Ala Leu lle Gly Arg Ala Leu 115 120 125 Val Ala Val Thr Trp Lys Leu Ala Val Leu Gly Arg Gly Ala Phe Cys 130 135 140 Ser Phe Gln Gly His Ser Val Phe Leu His Ala Asp Pro Leu 145 150 155

<210> 3895

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3895

Met Gly Ser Ser Gly Leu Leu Ser Leu Leu Val Leu Phe Val Leu Leu 1 5 10 15

Ala Asn Val Gln Gly Pro Gly Leu Thr Asp Trp Leu Phe Pro Arg Arg
20 25 30

Cys Pro Lys Ile Arg Glu Glu Cys Glu Phe Gln Glu Arg Asp Val Cys 35 40 45

Thr Lys Asp Arg Gln Cys Gln Asp Asn Lys Lys Cys Cys Val Phe Ser 50 55 60

Cys Glu Lys Lys Cys Leu Asp Leu Lys Gln Gly Asn Ile Gln Ser Cys
65 70 75 80

Arg 11e Thr Asn Pro Ser Ser Pro Cys Pro His Leu Leu Pro Ser Trp 85 90 95

Thr Gly Phe Val Pro

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<212> PRT
<213> Homo sapiens
<400> 3896
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Ser Gly Thr Thr Leu Leu Pro Gln Phe Arg Ala Pro Ser Trp Gln Thr
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Gly Met His Ser Ser Ala Ala Thr Glu Leu Phe Ala Thr Gly Pro Leu
                             40
         35
                                                  45
Pro Ser Thr Gly Thr Leu Pro Pro Ser Leu Ser Ala Tyr Gln His Pro
                         55
                                             60
Thr Thr Phe Ser Asn Arg Asn Phe Ala Thr Thr Ser Pro Leu Val Leu
                     70
                                          75
 65
Gln Asp Ser Thr Phe Asn Thr Thr Ser Asn Gly Ile Leu Ser His His
                                     90
Asp Pro Leu Leu Gln Ile Lys Thr Ser Gln Gly Thr Val Pro Thr Ala
            100
                                105
                                                     110
Leu Ala Phe Glu Arg Leu Gly Ser Ser Val Leu Ser Asn Ser Ile Pro
                            120
                                                 125
        115
Pro Gln Ser Ser Thr Tyr Arg Ser Ala Gln Glu Ser Ala Pro His Leu
                        135
                                             140
Leu Gln Pro Gln Phe Ser Leu Leu Pro Ser Ala Leu Gly Gly Ser Gln
145
                    150
                                                             160
Gln Thr Pro Gln Ala Tyr Ser Ser Thr Leu Phe Thr Ser Ser Thr Ala
                                     170
                165
Ser Ile Glu Arg Ala Leu Leu Arg Glu Cys Ser Val lle Lys His His
            180
                               185
Gln Arg Pro Ser Gly Thr Gln Ser lle Gln Ala Gln Leu Thr Gly Ser
        195
                            200
                                                 205
Gln His Ser Leu His Ser Tyr Leu Ser Asn Ser Ser Val Val Asn Phe
                        215
Gln Glu Thr Thr Arg Gln Ser Ser Leu Ser Cys Ser Pro Ile Gly Asp
225
                    230
                                         235
                                                             240
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Ser Thr Gln Asn Leu Pro Asp Ser Ser Pro Thr Gln Asn Tyr Ile Ser

				245					250					255	
Met	His	Ser	Ser	Gln	Asn	Val	Gln	Thr	Gln	Glu	Ser	Ser	Ser	Pro	Gln
			260					265					270		
Ser	Gln	Lys	Phe	Leu	Pro	Ala	Val	Gln	Ser	Ser	Ser	Phe	Ala	Ser	Ser
		275					280					285			
Thr	His	Cys	Gln	Thr	Leu	Gln	Asn	Asn	Пе	Thr	Ser	Pro	Asp	Pro	Lys
	290					295					300				
Ser	Tyr	Ala	Glu	Arg	Lys	Leu	Asp	Ser	Asp	Val	Tyr	Pro	Ser	Ser	Lys
305					310					315					320
Gln	Glu	Asp	Gly	Phe	Pro	Met	Gln	Glu	Leu	Gln	Val	Leu	Gln	Pro	Gln
				325					330					335	
Ala	Ser	Leu	Glu	Ser	Ser	Thr	G1n	Arg	Leu	Ser	Asp	G1y	G1u	Пе	Asn
			340	•				345					350		
Ala	Gln	Glu	Ser	Thr	Tyr	Lys	Val	Ser	Lys	Ala	Asp	Asp	Arg	Tyr	Ser
		355					360					365			
Gln	Ser	Val	He	Arg	Ser	Asn	Ser	Arg	Leu	Glu	Asp	Gln	Val	He	Gly
	370					375					380				
Val	Ala	Leu	Gln	Ala	Ser	Lys	Lys	Glu	Glu	Ser	Val	Val	Gly	Ser	Val
385					390					395					400
Thr	Gln	Leu	Asn	Gln	Gln	He	Gly	Gln	Val	Asn	Asn	Ala	Ala	Thr	Leu
				405					410					415	
Asp	Leu	Lys	Asn	Ser	Thr	Asn	Leu	He	Gln	Thr	Pro	Gln	lle	Arg	Leu
			420					425					430		
Asn	Thr		Asp	Leu	Lys	Gln	Gln	His	Pro	Leu	He		Lys	Va]	His
		435					440					445			
Glu	Ser	Lys	Val	Gln	Glu		His	Asp	Gln	lle		Asn	Ala	Ser	Ser
	450					455					460				~
	He	GIn	He	Pro		His	Ala	Leu	Gly		Gly	His	GIn	Ala	
465	Б		TO I	C.I.	470		,		C	475	0			61	480
Leu	Pro	Asn	Ihr		Val	Leu	Leu	Asp		Ala	Cys	Asp	Leu		He
1	C1	C1	C	485	1	C1	A 1	C1	490	C1	C1	V 1	1	495	C
Leu	Gln	GIn		11e	Leu	GIN	Ala		Leu	61 y	61n	vai		ATA	ser
	C 1	A 1 .	500	A	V . 1	C1	C	505	C1	C1	11.	V - 1	510	D	DI _{n n}
Leu	Gln		om	arg	vai	01n		rro	GIN	om	116		HIS	rro	rne
							n.//					わ・1 ト			
Lou	Gln	515 Met	Glo	GLv	llic	Val	520	Gla	Sor	Acr	Glv	525	Hic	Ser	Gla

	530					535					540				
G1n	Gln	Leu	His	Pro	Gln	Asn	Ser	Glu	Val	Met	Lys	Met	Asp	Leu	Ser
545					550					555					560
Glu	Ser	Ser	Lys	Pro	Leu	Gln	Gln	His	Leu	Thr	Thr	Lys	Gly	His	Phe
				565					570					575	
Ser	Glu	Thr	Asn	Gln	His	Asp	Ser	Lys	Asn	Gln	Phe	Val	Ser	Leu	Gly
			580					585					590		
Ser	Met	Cys	Phe	Pro	Glu	Ala	Val	Leu	Leu	Ser	Asp	Glu	Arg	Asn	He
		595					600					605			
Leu	Ser	Asn	Val	Asp	Asp	11e	Leu	Ala	Ala	Thr	Ala	Ala	Ala	Cys	Gly
	610					615					620				
Val	Thr	Pro	Thr	Asp	Phe	Ser	Lys	Ser	Thr	Ser	Asn	Glu	Thr	Met	Gln
625					630					635					640
Ala	Val	Glu	Asp	Gly	Asp	Ser	Lys	Ser	His	Phe	G}n	Gln	Ser	Leu	Asp
				645					650					655	
Val	Arg	His	Val	Thr	Ser	Asp	Phe	Asn	Ser	Met	Thr	Ala	Thr	Val	Gly
			660					665					670		
Lys	Pro	Gln	Asn	He	Asn	Asp	Thr	Ser	Leu	Asn	Gly	Asn	Gln	Val	Thr
		675					680					685			
Val	Asn	Leu	Ser	Pro	Val	Pro	Ala	Leu	Gln	Ser	Lys	Met	Thr	Leu	Asp
	690					695					700				
Gln	Gln	llis	He	Glu	Thr	Pro	Gly	Gln	Asn	Пe	Pro	Thr	Lys	Val	Thr
705					710					715					720
Ser	Ala	Val	Val	Gly	Pro	Ser	His	Glu	Val	Gln	Glu	Gln	Ser	Ser	Gly
				725					730					735	
Pro	Phe	Lys	Lys	Gln	Ser	Ala	Thr	Asn	Leu	Glu	Ser	Glu	Glu	Asp	Ser
			740					745					750		
Glu	Ala	Pro	Val	Asp	Ser	Thr	Leu	Asn	Asn	Asn	Arg	Asn	Gln	Glu	Phe
		755					760					765			
Val	Ser	Ser	Ser	Arg	Ser	11e	Ser	Gly	Glu	Ser	Ala	Thr	Ser	Glu	Ser
	770					775					780				
Glu	Phe	Thr	Leu	Gly	Gly	Asp	Asp	Ser	Gly	Val	Ser	Met	Asn	Pro	Ala
785					790					795					800
Arg	Ser	Ala	Leu	Ala	Leu	Leu	Ala	Met	Ala	Gln	Ser	Gly	Asp	Ala	Val
				805					810					815	
Sor	Val	tve	11a	C10	$C1\nu$	C.1n	Acr	$C1_{\rm B}$	Acr	Lov	Mot	Hic	Pho	Acr	Lan

			820					825					830		
GIn	Lys	Lys	Arg	Ala	Lys	Gly	Lys	Gly	Gln	Val	Lys	Glu	Glu	Asp	Asn
		835					840					845			
Ser	Asn	Gln	Lys	Gln	Leu	Lys	Arg	Pro	Ala	Gln	Gly	Lys	Arg	Gln	Asn
	850					855					860				
Pro	Arg	Gly	Thr	Asp	He	Tyr	Leu	Pro	Tyr	Thr	Pro	Pro	Ser	Ser	Glu
865					870					875					880
Ser	Cys	His	Asp	Gly	Tyr	Gln	His	Gln	Glu	Lys	Met	Arg	Gln	Lys	He
				885					890					895	
Lys	Glu	Val	Glu	Glu	Lys	Gln	Pro	Glu	Val	Lys	Thr	Gly	Phe	He	Ala
			900					905					910		
Ser	Phe	Leu	Asp	Phe	Leu	Lys	Ser	Gly	Pro	Lys	Gln	Gln	Phe	Ser	Thr
		915					920					925			
Leu	Ala	Va]	Arg	Met	Pro	Asn	Arg	Thr	Arg	Arg	Pro	Gly	Thr	Gln	Met
	930					935					940				
Val	Arg	Thr	Phe	Cys	Pro	Pro	Pro	Leu	Pro	Lys	Pro	Ser	Ser	Thr	Thr
945					950					955					960
Pro	Thr	Pro	Leu	Val	Ser	Glu	Thr	Gly	Gly	Asn	Ser	Pro	Ser	Asp	Lys
				965					970					975	
Val	Asp	Asn	Glu	Leu	Lys	Asn	Leu	Glu	His	Leu	Ser	Ser	Phe	Ser	Ser
			980					985					990		
Asp	Glu	Asp	Asp	Pro	Gly	Tyr	Ser	Gln	Asp	Ala	Tyr	Lys	Ser	Val	Ser
		995					1000					1005			
Thr	Pro	Leu	Thr	Thr	Leu	Asp	Ala	Thr	Ser	Asp	Lys	Lys	Lys	Lys	Thr
-	1010					1015					1020				
Glu	Ala	Leu	Gln	Val	Ala	Thr	Thr	Ser	Pro	Thr	Ala	Asn	Thr	Thr	Gly
1025	5				1030					1035					1040
Thr	Ala	Thr	Thr	Ser	Ser	Thr	Thr	Val	Gly	Ala	Val	Lys	Gln	Glu	Pro
				1045					1050					1055	
Leu	His	Ser	Thr	Ser	Tyr	Ala	Val	Asn	Пe	Leu	Glu	Asn	He	Ser	Ser
			1060					1065					1070		
Ser	Glu	Ser	Ser	Lys	Pro	He	61u	Leu	Asp	Gly	Leu	Pro	Ser	Asp	Gln
		1075					1080					1085			
		Lys	Gly	GIn			Va]	Ala	He			Phe	Thr	Asp	Glu
	1090					1095					1100				
Glu	Asp	Thr	Glu	Ser	G1v	Glv	Glin	GLv	Gln	Tyr	Arg	Glu	Arg	Asn	Glii

Phe Val Val Lys lle Glu Asp Ile Glu Thr Phe Lys Glu Ala Leu Lys Thr Gly Lys Glu Pro Pro Ala Ile Trp Lys Val Gln Lys Ala Leu Leu Gln Lys Phe Val Pro Glu He Arg Asp Gly Gln Arg Glu Phe Ala Ala Thr Asn Ser Tyr Leu Gly Tyr Phe Gly Asp Ala Lys Ser Lys Tyr Lys Arg Ile Tyr Val Lys Phe Ile Glu Asn Ala Asn Lys Lys Glu Tyr Val Arg Val Cys Ser Lys Lys Pro Arg Asn Lys Pro Ser Gln Thr 11e Arg Thr Val Gln Ala Lys Pro Ser Ser Ser Ser Lys Thr Ser Asp Pro Leu Ala Ser Lys Thr Thr Thr Lys Ala Pro Ser Val Lys Pro Lys Val Lys Gln Pro Lys Val Lys Ala Glu Pro Pro Pro Lys Lys Arg Lys Lys Trp Lys Glu Glu Phe Ser Ser Ser Gln Ser Asp Ser Ser Pro Glu He Ilis Thr Ser Ser Ser Asp Asp Glu Glu Phe Glu Pro Pro Ala Pro Phe Val Thr Arg Phe Leu Asn Thr Arg Ala Met Lys Glu Thr Phe Lys Ser Tyr Met Glu

<210> 3897

<211> 166

<212> PRT

<213> Homo sapiens

<400> 3897

Met Ala Leu Gln Ala Leu Ala Arg Leu Pro Arg Leu Glu Gly Gly Ser

5 10 15 Gly Asn Ser Lys Val Gly Phe Ser Ser Gly Trp Ser Ala Phe Leu Pro 25 Arg Arg Leu Gly Ser Gly 11e Ser Gly Phe Phe Cys Arg 11e Glu Thr 40 45 35 Cys Pro Trp Ala Leu Thr Leu Asn Thr Gly Arg Ser Ala Ala Cys Cys 55 Leu Ser Val Ala Trp Pro Leu His Pro Pro Ser Pro Ser Pro Cys Tyr 70 75 Pro Val Arg Arg Val Arg Gln Ser Leu His Pro Ser Ser Ser Trp Gly 85 90 Gly Arg Ser Ala Glu Ala Ser Gly Asp Leu Leu Arg Gly Val Cys Leu 105Ala Arg Asp Val Ser Ile Pro His Arg Gln Gly Arg Cys Leu Pro Arg 115 120 125 Ser Pro Trp Gly Ser Ala Gly Val Asn Ala Ala Leu Gln Gly Gly Arg 135 140 Gly Arg Ala Ser Ser Gly Gly Gly Gly Gly Ala Gln Gly Val Gln Leu 150 155 160 Gly His Lys Leu Thr Ala 165

<210> 3898

<211> 803

<212> PRT

<213> Homo sapiens

<400> 3898

 Met
 Pro
 Trp
 Val
 Glu
 Pro
 Lys
 Pro
 Gly
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 Glu
 Glu
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	50					55					60				
Asp	Лlа	Pro	Leu	Pro	Glu	Gly	Asp	Asp	Ala	Pro	Pro	Arg	Pro	Ser	Met
65					70					75					80
Leu	Asp	Asp	Ala	Pro	Arg	Leu	Pro	Leu	Glu	Leu	Asp	Asp	Ala	Pro	Leu
				85					90					95	
Pro	Glu	Glu	Glu	Thr	Pro	Glu	Pro	Thr	Ala	He	Cys	Arg	His	Arg	His
			100					105					110		
Arg	Cys	His	Thr	Asp	Cys	Leu	Glu	G1 y	Leu	Leu	Ser	Arg	Thr	Phe	Gln
		115					120					125			
Trp	Leu	Gly	Trp	Gln	Val	Gly	Ala	His	Pro	Trp	He	Phe	Leu	Leu	Ala
	130					135					140				
Pro	Leu	Met	Leu	Thr	Ala	Ala	Leu	G1y	Thr	Gly	Phe	Leu	Tyr	Leu	Pro
145					150					155					160
Lys	Asp	Glu	Glu	GJu	Asp	Leu	Glu	Glu	His	Tyr	Thr	Pro	Val	Gly	Ser
				165					170					175	
Pro	Ala	Lys	Ala	Glu	Arg	Arg	Phe	Val	Gln	Gly	His	Phe	Thr	Thr	Asn
			180					185					190		
Asp	Ser	Tyr	Arg	Phe	Ser	Ala	Ser	Arg	Arg	Ser	Thr	Glu	Ala	Asn	Phe
		195					200					205			
Val	Ser	Leu	Leu	Val	Val	Ser	Tyr	Ser	Asp	Ser	Leu	Leu	Asp	Pro	Ala
	210					215					220				
Thr	Phe	Ala	Glu	Val	Ser	Lys	Leu	Asp	G1 y	Ala	Val	Gln	Asp	Leu	Arg
225					230					235					240
Val	Ala	Arg	Glu	Lys	Gly	Ser	Gln	He	GIn	Tyr	Gln	GIn	Val	Cys	Ala
				245					250					255	
Arg	Tyr	Arg	Ala	Leu	Cys	Val	Pro	Pro	Asn	Pro	He	Leu	Tyr	Ala	Trp
			260					265					270		
Gln	Val		Lys	Thr	Leu	Asn		Ser	Ser	He	Ser		Pro	Ala	Tyr
		275					280					285			
Asn		Gly	Arg	llis	Pro	Leu	Tyr	Leu	Thr	Gly		Phe	G] y	Gly	Tyr
2.1	290	<i>a</i> .	6.1			295		4.1	0.1		300				
	Leu	GIy	61 y	Ser		Gly	Met	Gly	GIn		Leu	Leu	Arg	Ala	
305				,	310	ar.			T.I	315		В	63	т.	320
лта	Met	Arg	Leu		Lyr	Tyr	Leu	Lys		Glu	Asp	PTO	6 J U		Asp
Ve 1	C1 5	50=	1	325	Т	Lou	Tl- •	U3 =	330	Lav	Λ .~	C1	Dha	335	A ~ ==

			340					345					350		
11e	Lys	Asn	lle	Leu	Ala	Leu	Lys	Lys	He	Glu	Val	Val	His	Phe	Thr
		355					360					365			
Ser	Leu	Ser	Arg	Gln	Leu	Glu	Phe	Glu	Ala	Thr	Ser	Val	Thr	Val	Пе
	370					375					380				
Pro	Val	Phe	His	Leu	Ala	Tyr	Пе	Leu	He	He	Leu	Phe	Ala	Val	Thr
385					390					395					400
Ser	Cys	Phe	Gly	Phe	Asp	Cys	lle	Arg	Asn	Lys	Met	Cys	Val	Ala	Ala
				405					410					415	
Phe	Gly	Val	He	Ser	Ala	Phe	Leu	Ala	Val	Val	Ser	Gly	Phe	Gly	Leu
			420					425					430		
Leu	Leu	His	lle	Gly	Val	Pro	Phe	Val	He	11e	Val	Ala	Asn	Ser	Pro
		435					440					445			
Phe	Leu	He	Leu	Gly	Val	Gly	Val	Asp	Asp	Met	Phe	He	Met	Пе	Ser
	450					455					460				
Ala	Trp	His	Lys	Thr	Asn	Leu	Ala	Gly	Asp	He	Arg	Glu	Arg	Met	Ser
465					470					475					480
Asn	Val	Tyr	Ser	Lys	Ala	Ala	Val	Ser	Ile	Thr	Ile	Thr	Thr	He	Thr
				485					490					495	
Asn	He	Leu	Ala	Leu	Tyr	Thr	Gly	Ile	Met	Ser	Ser	Phe	Arg	Ser	Val
			500					505					510		
Gln	Cys	Phe	Cys	He	Tyr	Thr	Gly	Thr	Thr	Leu	Leu	Phe	Cys	Tyr	Phe
•		515					520					525			
Tyr	Asn	11e	Thr	Cys	Phe	Gly	Ala	Phe	Met	Ala	Leu	Asp	Gly	Lys	Arg
	530					535					540				
Glu	Val	Val	Cys	Leu	Cys	Trp	Leu	Lys	Lys	Ala	Asp	Pro	Lys	Trp	Pro
545					550					555					560
Ser	Phe	Lys	Lys	Phe	Cys	Cys	Phe	Pro	Phe	G1 y	Ser	Val	Pro	Asp	Glu
				565					570					575	
His	Gly	Thr	Asp	He	His	Pro	Met	Ser	Leu	Phe	Phe	Arg	Asp	Tyr	Phe
			580					585					590		
Gly	Pro	Phe	Leu	Thr	Arg	Ser	G] u	Ser	Lys	Tyr	Phe	Val	Va1	Phe	Пе
		595					600					605			
Tyr		Leu	Tyr	He	Пе		Ser	He	Tyr	Gly	Cys	Phe	His	Val	Gln
	610					615					620				
Glu	G1v	Теп	Asp	Leu	Aro	Asn	Len	Ala	Ser	Asn	Asp	Ser	Tyr	He	Thr

Pro Tyr Phe Asn Val Glu Glu Asn Tyr Phe Ser Asp Tyr Gly Pro Arg Val Met Val Ile Val Thr Lys Lys Val Asp Tyr Trp Asp Lys Asp Val Arg Gln Lys Leu Glu Asn Cys Thr Lys Ile Phe Glu Lys Asn Val Tyr Val Asp Lys Asm Leu Thr Glu Phe Trp Leu Asp Ala Tyr Val Gln Tyr Leu Lys Gly Asn Ser Gln Asp Pro Asn Glu Lys Asn Thr Phe Met Asn Asn 11e Pro Asp Phe Leu Ser Asn Phe Pro Asn Phe Gln His Asp 11e Asn Ile Ser Ser Ser Asn Glu lle lle Ser Ser Arg Gly Phe Ile Gln Thr Thr Asp Val Ser Ser Ser Ala Lys Lys Lys lle Leu Leu Phe Gln Leu Arg Arg Ile Ala Glu Asp Cys Gln Ile Pro Leu Met Val Tyr Asn Gln Ala Phe Ile Tyr Phe Asp Gln Tyr Ala Ala Ile Leu Glu Asp Thr Val Arg Asn

<210> 3899

⟨211⟩ 520

<212> PRT

<213> Homo sapiens

<400> 3899

Met Glu Phe His Asn Gly Gly His Val Ser Gly 11e Gly Gly Phe Leu

1 5 10 15

Val Ser Leu Thr Ser Arg Met Lys Pro His Thr Leu Ala Val Thr Pro

20 25 30

Ala	Leu	He	Phe	Ala	He	Thr	Val	Ala	Thr	lle	Gly	Ser	Phe	Gln	Phe
		35					40					45			
Gly	Tyr 50	Asn	Thr	Gly	Val	11e 55	Asn	Ala	Pro	GIu	Thr 60	Пе	lle	Lys	Glu
Phe		Asn	Lvs	Thr	Leu		Asp	Lvs	Ala	Asn	Ala	Pro	Pro	Ser	Glu
65			, -		70		,	, -		75					80
	Leu	Leu	Thr	Asn 85	Leu	Trp	Ser	Leu	Ser 90	Val	Ala	He	Phe	Ser 95	Val
Gly	Gly	Met	11e 100	Gly	Ser	Phe	Ser	Val 105	Gly	Leu	Phe	Val	Asn 110	Arg	Phe
G1 y	Arg	Arg		Ser	Met	Leu	He		Asn	Leu	Leu	Ala 125		Thr	G1 y
G1 y			Met	Gly	Leu			He	Ala	Glu	Ser		Glu	Met	Leu
	130	0.1			v. 1	135	61	,	Di	0	140		C	Tr.	C 1
	Leu	61 y	Arg	Leu		11e	GIY	Leu	Phe		Gly	Leu	Cys	Hnr	
145	V - 1	D	Mad	Т	150	C1	C1	71.	C	155 Date:	Tl	A 1	1	Λ	160
rne	vai	rro	мет	165	116	біу	GIU	116	170	770	Thr	мта	Leu	175	ыту
Ala	Phe	Gly	Thr 180	Leu	Asn	Gln	Leu	Gly 185	lle	Va]	lle	Gly	11e 190	Leu	Val
Ala	Gln	11e 195	Phe	Gly	Leu	Glu	Leu 200	He	Leu	Gly	Ser	Glu 205	Glu	Leu	Trp
Pro	Val [*] 210	Leu	Leu	Gly	Phe	Thr 215	lle	Leu	Pro	Ala	11e 220	Leu	Gln	Ser	Ala
Ala 225	Leu	Pro	Cys	Cys	Pro 230	Glu	Ser	Pro	Arg	Phe 235	Leu	Leu	lle	Asn	Arg 240
Lys	Lys	Glu	Glu	Asn 245	Ala	Thr	Arg	11 e	Leu 250	Gln	Arg	Leu	Trp	Gly 255	Thr
Gln	Asp	Val	Ser 260	Gln	Asp	lle	Gln	Glu 265	Met	Lys	Asp	Glu	Ser 270	Ala	Arg
Met	Ser	Gln 275		Lys	Gln	Val	Thr 280		l.eu	Glu	Leu	Phe 285		Va]	Ser
Ser	Tyr 290		Gln	Pro	lle	11e 295		Ser	lle	Val	Leu 300		Leu	Ser	Gla
Clo	Lou	Can	Clv	116	Acr		Vo.1	Dha	Turn	Tyrs	Sor	Tha	Cly	116	Dba

Lys Asp Ala Gly Val Gln Gln Pro Ile Tyr Ala Thr Ile Ser Ala Gly Val Val Asn Thr 11e Phe Thr Leu Leu Ser Leu Phe Leu Val Glu Arg Ala Gly Arg Arg Thr Leu His Met Ile Gly Leu Gly Gly Met Ala Phe Cys Ser Thr Leu Met Thr Val Ser Leu Leu Leu Lys Asn His Tyr Asn Gly Met Ser Phe Val Cys Ile Gly Ala Ile Leu Val Phe Val Ala Cys Phe Glu Ile Gly Pro Gly Pro Ile Pro Trp Phe Ile Val Ala Glu Leu Phe Ser Gln Gly Pro Arg Pro Ala Ala Met Ala Val Ala Gly Cys Ser Asn Trp Thr Ser Asn Phe Leu Val Gly Leu Leu Phe Pro Ser Ala Ala Tyr Tyr Leu Gly Ala Tyr Val Phe Ile Ile Phe Thr Gly Phe Leu Ile Thr Phe Leu Ala Phe Thr Phe Phe Lys Val Pro Glu Thr Arg Gly Arg Thr Phe Glu Asp 11e Thr Arg Ala Phe Glu Gly Gln Ala His Gly Ala Asp Arg Ser Gly Lys Asp Gly Val Met Gly Met Asn Ser Ile Glu Pro Ala Lys Glu Thr Thr Thr Asn Val

<210> 3900

<211> 213

<212> PRT

<213> Homo sapiens

<400> 3900

Met Gly Arg Cys Ser Trp His Pro Glu Cys Val Ser Gly Gln Ala Leu

10 Val Lys Glu Ala Leu Ala Gly Thr Arg Asp Met Thr Ser Thr Leu Arg 25 Phe His Pro Gln Ser Thr Gln Met Arg Arg Val Ser Pro Gly Ala Pro Pro Cys Pro Thr Pro Thr Leu Gly Gly Ile Leu Ser Arg Glu Met Gly 55 60 Pro Pro Ser Pro Arg Arg Pro Arg Ala Val Ala Val Arg Val Arg Lys 70 75 Ala Thr Thr Cys Ala Val Phe Val Val Thr Glu Thr Trp Glu Ser Leu 85 90 Thr Gly Ser Pro Thr Glu Ala Gly Ala Gly Leu Gly Ser Glu Ala Pro 105 Gly Glu Pro Arg Ala Ala Gly Phe Cys Thr His Leu Leu His Leu Pro 115 120 125 Thr His Thr Trp Lys Lys Ser Gln Ala His Leu Glu Ala Ala Gln Leu 135 Leu Ser Ser Cys Pro Pro Ile Pro Gly Phe Ser Ser Gln Leu His Pro 150 155 Gly Pro Gly Thr Pro Cys Asn Leu Gly Ser Pro Ala Pro Leu Arg Gly 165 170 175 Leu Pro Val Thr Trp Ser Gln Leu Pro Pro Arg Gly Ala Asp Leu Thr 185 Ser Thr Thr Cys Gln Trp His Val Pro Gly Glu Gln Glu Leu Gly Leu 195 200 205 Gln Gly Pro Cys Leu 210

<210> 3901

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3901

Met Ala Val Tyr Asn Met Val Pro Arg Arg Val Gly Ile Gln Arg Lys

ì 5 10 15 Trp Glu Leu Ser Ser Glu Cys Ala Pro Asn Leu Arg Ser Asp Thr Pro 25 Ser Phe Leu Leu Tyr Phe Thr Gly Tyr Thr Asp Gln Cys Leu Tyr Asn Val Gly Gly Asn Ser Ile Thr Val Asn Ile Ile Arg Gln Gly Ser Leu 55 Gly Thr Val Leu Glu Thr Asp Ser His Ser Pro Lys Pro Phe Arg Tyr 75 70 Ala Leu Ile Tyr Glu Phe Thr Ile Ile Phe Lys Thr Asn Ser Trp Ala 85 90 Arg Trp Pro Ala Pro Ile Val Pro Ala Ile Gln Glu Val Glu Gly 100 105 110 Gly Phe Phe Glu Pro Arg Gly Leu Gly Leu 115 120

<210> 3902

<211> 449

<212> PRT

<213> Homo sapiens

<400> 3902

Met lle Val Thr Gln Pro Lys Gly lle Gly Ser Thr Val Gln Pro Ala 1 5 10 Ala Lys Ile Ile Pro Thr Lys lle Val Tyr Gly Gln Gln Gly Lys Thr 20 25 Gln Val Leu lle Lys Pro Lys Pro Val Thr Phe Gln Ala Thr Val Val 40 Ser Glu Gln Thr Arg Gln Leu Val Thr Glu Thr Leu Gln Gln Ala Ser 50 60 55 Arg Val Ala Glu Ala Gly Asn Ser Ser Ile Gln Glu Gly Lys Glu Glu Pro Gln Asn Tyr Thr Asp Ser Ser Ser Ser Ser Thr Glu Ser Ser Gln 90

Ser Ser Gln Asp Ser Gln Pro Val Val His Val 11e Ala Ser Arg Arg

			100					105					110		
Gln	Лsp	Trp	Ser	Glu	His	Glu	Пе	Ala	Met	Glu	Thr	Ser	Pro	Thr	He
		115					120					125			
Пе	Tyr	Gln	Asp	Val	Ser	Ser	Glu	Ser	Gln	Ser	Ala	Thr	Ser	Thr	11e
	130					135					140				
Lys	Ala	Leu	Leu	Glu	Leu	Gln	Gln	Thr	Thr	Val	Lys	Glu	Lys	Leu	Glu
145					150					155					160
Ser	Lys	Pro	Arg	Gln	Pro	Thr	11e	Asp	Leu	Ser	Gln	Met	Ala	Val	Pro
				165					170					175	
11e	Gln	Met	Thr	Gln	Glu	Lys	Arg	His	Ser	Pro	Glu	Ser	Pro	Ser	Пе
			180					185					190		
Ala	Val	Val	Glu	Ser	Glu	Leu	Val	Ala	Glu	Tyr	He	Thr	Thr	Val	Ser
		195					200					205			
His	Arg	Ser	Gln	Pro	Gln	Gln	Pro	Ser	Gln	Pro	Gln	Arg	Thr	Leu	Leu
	210					215					220				
Gln	His	Val	Ala	Gln	Ser	Gln	Thr	Ala	Thr	Gln	Thr	Ser	Val	Val	Val
225					230					235					240
Lys	Ser	Ile	Pro	Ala	Ser	Ser	Pro	Gly	Ala	He	Thr	His	lle	Met	G1n
				245					250					255	
Gln	Ala	Leu	Ser	Ser	His	Thr	Ala	Phe	Thr	Lys	His	Ser	Glu	Glu	Leu
			260					265					270		
Gly	Thr	Glu	Glu	Gly	Glu	Val	Glu	Glu	Met	Asp	Thr	Leu	Asp	Pro	Gln
		275					280					285			
Thr	Gly	Leu	Phe	Tyr	Arg	Ser	Ala	Leu	Thr	Gln	Ser	Gln	Ser	Ala	Lys
	290					295					300				
Gln	Gln	Lys	Leu	Ser	Gln	Pro	Pro	Leu	Glu	Gln	Thr	Gln	Leu	G]n	Val
305					310					315					320
Lys	Thr	Leu	Glņ		Phe	Gln	Thr	Lys		Lys	Gln	Thr	He		Leu
				325					330					335	
Gln	Ala	Asp		Leu	Gln	His	Lys		Pro	G] n	Met	Pro	Gln	Leu	Ser
			340					345					350		_
He	Arg		G]n	Lys	Leu	Thr		Leu	Gln	Gln	Glu		Ala	Gln	Pro
		355					360					365			
Lys		Asp	Val	GIn	His		GIn	His	Pro	Met		Ala	Glu	Asp	Arg
6.1	370	D	TCI.	,		375	67	D	D	C I	380	V 1	Vo.1	C I	w .
1 1 10	1 01.	1/300	1 10 20	1 01.	3/1 (4	AIA	f 1 +~	Line	UNG	1.10	1 10 10	WO!	M Co. I	1. 1.10	M.c.

385 390 395 400 Leu Ala Val Lys Thr Thr Gln Gln Leu Pro Lys Leu Gln Gln Ala Pro 410 Asn Gln Pro Lys Ile Tyr Val Gln Pro Gln Thr Pro Gln Ser Gln Met 420 430 Ser Leu Pro Ala Ser Ser Glu Lys Gln Thr Ala Ser Gln Val Thr Glu 435 440 445 Tyr <210> 3903 <211> 968 <212> PRT <213> Homo sapiens <400> 3903 Met Arg Cys Pro Gly Pro Arg Leu Leu Glu Thr Ser Trp Arg His Pro 5 10 Pro Ala Pro Phe Thr Ser Thr Asn Arg His Leu Tyr Asp Phe Thr Gly 20 25 30 Asn Leu Asn Leu Asp Gly Lys Ser Leu Val Ala Leu Gly Pro Asp Gln 40 45 He Leu Leu Arg Gly Thr Gln Leu Arg Asn Thr Gln Trp Val Phe Gly 50 55 lle Val Val Tyr Thr Gly His Asp Thr Lys Leu Met Gln Asn Ser Thr 70 75 Lys Ala Pro Leu Lys Arg Ser Asn Val Glu Lys Val Thr Asn Val Gln

Ala Gly Ala Leu Tyr Trp Asn Arg Ser His Gly Glu Lys Asn Trp Tyr 115 120 125

lle Leu Val Leu Phe Gly Ile Leu Leu Val Met Ala Leu Val Ser Ser

105

85

100

90

110

11e Lys Lys Met Asp Thr Thr Ser Asp Asn Phe Gly Tyr Asn Leu Leu 130 135 140

Thr Phe lle lle Leu Tyr Asn Asn Leu lle Pro lle Ser Leu Leu Val

145					150					155					160
Thr	Leu	Glu	Val	Va]	Lys	Tyr	Thr	Gln	Ala	Leu	Phe	He	Asn	Trp	Asp
				165					170					175	
Thr	Asp	Met	Tyr	Tyr	He	Gly	Asn	Asp	Thr	Pro	Ala	Met	Ala	Arg	Thr
			180					185					190		
Ser	Asn	Leu	Asn	Glu	Glu	Leu	Gly	Gln	Val	Lys	Tyr	Leu	Phe	Ser	Asp
		195					200					205			
Lys	Thr	Gly	Thr	Leu	Thr	Cys	Asn	11e	Met	Asn	Phe	Lys	Lys	Cys	Ser
	210					215					220				
He	Ala	Gly	Val	Thr	Tyr	Gly	His	Phe	Pro	Glu	Leu	Ala	Arg	G] u	Pro
225					230					235					240
Ser	Ser	Asp	Asp	Phe	Cys	Arg	Met	Pro	Pro	Pro	Cys	Ser	Asp	Ser	Cys
				245					250					255	
Asp	Phe	Asp	Asp	Pro	Arg	Leu	Leu	Lys	Asn	He	Glu	Asp	Arg	His	Pro
			260					265					270		
Thr	Ala	Pro	Cys	He	Gln	Glu	Phe	Leu	Thr	Leu	Leu	Ala	Val	Cys	His
		275					280					285			
Thr	Val	Val	Pro	Glu	Lys	Asp	Gl y	Asp	Asn	lle	He	Tyr	Gln	Ala	Ser
	290					295					300				
Ser	Pro	Asp	Glu	Ala	Ala	Leu	Val	Lys	Gly	Ala	Lys	Lys	Leu	Gly	Phe
305					310					315					320
Va]	Phe	Thr	Ala	Arg	Thr	Pro	Phe	Ser	Val	He	He	Glu	Ala	Met	Gly
				325					330					335	
Gln	Glu	Gln	Thr	Phe	Gly	He	Leu	Asn	Val	Leu	Glu	Phe	Ser	Ser	Asp
			340					345					350		
Arg	Lys	Arg	Met	Ser	Val	He	Val	Arg	Thr	Pro	Ser	Gly	Arg	Leu	Arg
		355					360					365			
Leu	Tyr	Cys	Lys	Gly	Ala	Asp	Asn	Val	He	Phe	Glu	Arg	Leu	Ser	Lys
	370					375					380				
Asp	Ser	Lys	Tyr	Met	Glu	Glu	Thr	Leu	Cys	His	Leu	Glu	Tyr	Phe	Ala
385					390					395					400
Thr	Glu	Gly	Phe	Arg	Thr	Leu	Cys	Val	Ala	Tyr	Ala	Asp	Leu	Ser	Glu
				405					410					415	
Asn	Glu	Tyr	Glu	Glu	Trp	Leu	Lys	Val	Tyr	Gln	G]u	Ala	Ser	Thr	He
			420					425					430		
Leu	Lys	Asp	Arg	Ala	Gln	Arg	Leu	Glu	Glu	Cys	Tyr	Glu	Пe	Пе	Glu

		435					440					445			
Lys	Asn	Leu	Leu	Leu	Leu	Gly	Ala	Thr	Ala	11e	Glu	Asp	Arg	Leu	Gln
	450					455					460				
Ala	Gly	Val	Pro	Glu	Thr	He	Ala	Thr	Leu	Leu	Lys	Ala	Glu	He	Lys
465					470					475					480
He	Trp	Val	Leu	Thr	Gly	Asp	Lys	Gln	Glu	Thr	Ala	He	Asn	Пе	Gly
				485					490					495	
Tyr	Ser	Cys	Arg	Leu	Val	Ser	Gln	Asn	Met	Ala	Leu	11e	Leu	Leu	Lys
			500					505					510		
Glu	Asp	Ser	Leu	Asp	Ala	Thr	Arg	Ala	Ala	He	Thr	Gln	His	Cys	Thr
		515					520					525			
Asp	Leu	Gly	Asn	Leu	Leu	G1y	Lys	Glu	Asn	Asp	Val	Ala	Leu	He	Пе
	530					535					540				
Asp	Gly	His	Thr	Leu	Lys	Tyr	Ala	Leu	Ser	Phe	Glu	Val	Arg	Arg	Ser
545					550					555					560
Phe	Leu	Asp	Leu	Ala	Leu	Ser	Cys	Lys	Ala	Val	Ile	Cys	Cys	Arg	Val
				565					570				/	575	
Ser	Pro	Leu	Gln	Lys	Ser	Glu	He	Val	Asp	Val	Val	Lys	Lys	Arg	Val
			580					585					590		
Lys	Ala	lle	Thr	Leu	Ala	Пe	Gly	Asp	Gly	Ala	Asn	Asp	Val	Gly	Met
		595					600					605			
He	Gln	Thr	Ala	His	Val	G] y	Va]	G1 y	He	Ser	Gly	Asn	Glu	Gly	Met
	610					615					620				
	Ala	Thr	Asn	Asn		Asp	Tyr	Ala	He		Gln	Phe	Ser	Tyr	Leu
625					630					635					640
Glu	Lys	Leu	Leu	Leu	Val	His	Gly	Ala		Ser	Tyr	Asn	Arg		Thr
				645			_		650					655	
Lys	Cys	11e		Tyr	Cys	Phe	Tyr		Asn	Val	Val	Leu	Tyr	He	He
			660					665					670		•~•
Glu	Leu		Phe	Ala	Phe	Val		GLy	Phe	Ser	GIy		He	Leu	Phe
		675	0		0.1	,	680				131	685		,	
Glu		Trp	Cys	He	Gly		lyr	Asn	Val	He		lhr	Ala	Leu	Pro
Б	690	201		6.1		695	6.1		C	0	700	0.1	C.1	C	
	rhe	Inr	Leu	ыу		Phe	Glu	Arg	Ser		ınr	GIN	Glu	5er	
705	Δ.	DI	D.	C1	710	T.		7 7	T)	715	Δ	C1.	Glu	C1.	720
1 (511	$A \cap G$	LUG	rro	ulb	1 611	LVY	IVC	LIE	ınr	uin	ASD	ULV	ULLI	ULLV	rne

				725					730					735	
Asn	Thr	Lys	Val	Phe	Trp	Gly	His	Cys	He	Asn	Ala	Leu	Val	His	Ser
			740					745					750		
Leu	Пе	Leu	Phe	Trp	Phe	Pro	Met	Lys	Ala	Leu	Glu	His	Asp	Thr	Val
		755					760					765			
Leu	Thr	Ser	Gly	His	Ala	Thr	Asp	Tyr	Leu	Phe	Val	Gly	Asn	He	Val
	770					775					780				
Tyr	Thr	Tyr	Va]	Val	Val	Thr	Val	Cys	Leu	Lys	Ala	Gly	Leu	Glu	Thr
785					790					795					800
Thr	Ala	Trp	Thr	Lys	Phe	Ser	His	Leu	Ala	Val	Trp	Gly	Ser	Met	Leu
				805					810					815	
Thr	Trp	Leu	Val	Phe	Phe	Gly	He	Tyr	Ser	Thr	He	Trp	Pro	Thr	He
			820					825					830		
Pro	Пе	Ala	Pro	Asp	Met	Arg	Gly	Gln	Ala	Thr	Met	Val	Leu	Ser	Ser
		835					840					845			
Ala	His	Phe	Trp	Leu	Gly	Leu	Phe	Leu	Val	Pro	Thr	Ala	Cys	Leu	He
	850					855					860				
Glu	Asp	Val	Ala	Trp	Arg	Ala	Ala	Lys	His	Thr	Cys	Lys	Lys	Thr	Leu
865					870					875					880
Leu	Glu	Glu	Val	Gln	Glu	Leu	Glu	Thr	Lys	Ser	Arg	Val	Leu	Gly	Lys
				885					890					895	
Ala	Val	Leu	Arg	Asp	Ser	Asn	Gly	Lys	Arg	Leu	Asn	Glu	Arg	Asp	Arg
			900					905					910		
Leu	He	Lys	Arg	Leu	Gly	Arg	Lys	Thr	Pro	Pro	Thr	Leu	Phe	Arg	Gly
		915					920					925			
Ser	Ser	Leu	Gln	Gln	Gly	Val	Pro	His	Gly	Tyr	Ala	Phe	Ser	Gln	Glu
	930					935					940				
Glu	His	Gly	Ala	Val	Ser	Gln	Glu	Glu	Val	11e	Arg	Ala	Tyr	Asp	Thr
945					950					955					960
Thr	Lys	Lys	Lys	Ser	Arg	Lys	Lys								
				965											

<210> 3904

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3904

Met 11e Pro Cys Gly Met Arg Phe 11e Gly Leu Ala Thr Val Leu Leu

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Lys Pro Leu Leu Lys GIn Pro Ser Glu Val Leu Phe Val Lys Asp Leu 20 25 30

Thr Leu Leu Asn His Ser Met Lys Pro Thr Asp Cys Thr Val Thr Leu 35 40 45

Gln Val Ala His Met Ser Asn Gln Asp Ile Glu Lys Thr Gly Ala Glu 50 60

Asp His Leu Gly 11e Thr Ala Arg Glu Ala Ala Ser Gln Lys Leu Met 65 70 75 80

Val Pro Gly Ser Thr Ala His Arg Ala Leu Ser Ser Lys Pro Gln His 85 90 95

Phe Gln Val Arg Val Lys Val Phe Glu Ala Arg Gln Leu Met Gly Asn 100 105 110

Asn Ile Lys Pro Val Val Lys Val Ser lle Ala Gly Gln Gln His Gln
115 120 125

Thr Arg Tle Lys Met Gly Asn Asn Pro Phe Phe Asn Glu Val Gly
130 135 140

<210> 3905

<211> 195

<212> PRT

<213> Homo sapiens

<400> 3905

Met Arg Val Gly Thr Trp 11e Cys Leu Pro Gly Arg Pro Gly Arg Cys

1 5 10 15

Arg Lys Gln His Asp Leu Gly Asn Cys Pro Glu Val Pro Gly 11e Phe

20 25 30

Lys Thr Leu Ala Leu Ser Pro Gly Ala Pro Asp Met Met Gln Gln Pro

35 40 45

Arg Val Glu Thr Asp Thr lle Gly Ala Gly Glu Gly Pro Gln Gln Ala 55 Val Pro Trp Ser Ala Trp Val Thr Arg His Gly Trp Val Arg Trp Trp 70 75 Val Ser His Met Pro Pro Ser Trp 11e Gln Trp Trp Ser Thr Ser Asn 85 , 90 Trp Arg Gln Pro Leu Gln Arg Leu Leu Trp Gly Leu Glu Gly 11e Leu 105 Tyr Leu Leu Leu Ala Leu Met Leu Cys His Ala Leu Phe Thr Thr Gly 115 120 125 Ser His Leu Leu Ser Ser Leu Trp Pro Val Val Ala Ala Val Trp Arg 135 140 His Leu Leu Pro Ala Leu Leu Leu Leu Val Leu Ser Ala Leu Pro Ala 150 155 Leu Leu Phe Thr Ala Ser Phe Leu Leu Leu Phe Ser Thr Leu Leu Ser 165 170 175 Leu Val Gly Leu Leu Thr Ser Met Thr His Pro Gly Asp Thr Gln Asp 185 190 Leu Asp Gln 195 <210> 3906 <211> 1116 <212> PRT <213> Homo sapiens <400> 3906 Met Glu Ser Pro Leu Ile Tyr Val Ser Val Leu Leu Leu Asn Ile Phe 1 5 10 15 Glu Phe Ser Ser Gly 11e Val Tyr Asn Lys Asp Asp Thr Glu Lys Arg 25 Phe Ala Cys Ser Asn Lys Glv Phe Pro Gln Glu Asn Glu 11e 11e Lys 40

Leu Tyr Leu Phe Leu Glu Asn Leu Lys IIe Gln Cys Phe Phe Gln Thr

60

55

Glu	Asn	Glu	lle	Ala	Ser	Lys	Ala	Met	Leu	Ser	Val	Phe	Thr	Ser	Gly
65					70					75					80
Gly	Leu	Ala	Pro	Ser 85	Leu	Gly	He	Met	Asn 90	Ser	Thr	Tyr	Asn	Gly 95	Пє
Phe	His	Phe	Asn	Leu	Thr	Leu	Phe	Ser	Asp	Arg	He	Leu	Trp	Leu	Val
			100					105					110		
Asp	He	Pro	Arg	Glu	Asn	He	Thr	Gln	Ser	Thr	Asp	He	Ala	Ala	Val
		115					120					125			
Glu	Glu	Trp	Leu	Val	Arg	He	Thr	Leu	His	His	Gly	Leu	Asn	He	Tyr
	130					135					140				
Ala	Thr	Glu	Gly	Thr	Leu	Leu	Asp	Val	He	Arg	Glu	Pro	He	Leu	Gln
145					150					155					160
Trp	Thr	Pro	Gly	Asp	Va]	Пе	Pro	Glu	Ser	Glu	He	Ser	Lys	Leu	Tyr
				165					170					175	
Pro	His	Val		Asp	Leu	Lys	Va]		Lys	Cys	Pro	Cys		Asn	Asp
			180					185					190		
Val	Ala	Leu	Leu	Gly	Phe	lle		Asp	Thr	He	Val		Gly	Val	Tyr
	0.1	195	mı	Di	~ 1	0.1	200				_	205			_
He		He	Thr	Phe	G1 y		Phe	Trp	His	Asp		Asp	Thr	Thr	Trp
Dl	210	М-4	Т!	C1	ть	215	т	c	C1.	1	220	C 1	C1	т	C I
225	ASII	Met	1111	GIII	230	116	LÀT	ser	GIII		GIB	Giu	GIU	Tyr	
	Lou	Sor	Lou	Vol		Mot	Vol	Lou	The	235	Uic	Dha	Lou	Vo.1	240
usb	Leu	Ser	Leu	245	nsp	Mert	vai	reu	250	АЅП	111.5	гие	Leu	255	116
Leu	Thr	Ser	Leu		Len	Phe	Val	Sar		Aen	Lau	Ara	Tyr		Sar
1500	7111	501	260	Oly	Leu	1110	• (11	265	GTG	пор	<u>r</u> .cu	Mg	270	110	Ser
Arg	His	Ser		Ser	Phe	Ser	Arg		Asp	Phe	Cvs	Glv		Glu	Arg
0		275					280				0,0	285		010	8
Va]	Asp	Tyr	Val	Lys	Gly	Lvs		Trp	Tyr	Asn	Glu		Cvs	Phe	Ala
	290	•		-	•	295		·	•		300		•		
Asn	Arg	Glu	His	Phe	Glu	Val	Asp	Tyr	Val	Thr	Val	Thr	Phe	Glu	Arg
305					310					315					320
Asn	Arg	Thr	Leu	Ser	G] u	Ser	Ser	Ser	Cys	Phe	Tyr	Ser	G1n	Glu	Pro
				325					330					335	
Phe	Leu	Glu	Trp	Val	Pro	Cys	Leu	Pro	His	He	Phe	Lys	Gly	Пе	Lys
			340					245					350		

He	Phe	Pro	Thr	Val	Leu	Thr	Phe	Leu	Val	Asp	Gln	Glu	Arg	Gly	Thr
		355					360					365			
Gly	Val	Tyr	Leu	Phe	Tyr	Asn	Lys	Val	Arg	Lys	Thr	Ala	He	Ala	Ser
	370					375					380				
Val	Ser	Thr	Leu	Arg	Asn	Asn	Glu	Pro	Asn	.Ser	61n	Ser	Lys	Phe	Pro
385					390					395					400
He	Phe	Arg	Phe	Pro	Ser	Ser	Phe	Ser	Ser	Pro	Val	Gly	Met	Val	Phe
				405					410					415	
His	Pro	Arg	Ser	His	Phe	Leu	Tyr	Ala	Tyr	Gly	Asn	Gln	Ile	Trp	Leu
			420					425					430		
Ser	Val	Asp	Gly	Gly	Asn	Thr	Phe	G1n	Leu	He	Ala	Asn	Phe	His	Asp
		435					440					445			
Asp	He	He	Lys	Lys	Thr	Phe	His	Ser	Phe	Tyr	Thr	Ser	Ala	Пе	Thr
	450					455					460				
Phe	Val	Ser	Gln	Arg	Gly	Lys	Val	Tyr	Ser	Thr	Lys	Ala	Gly	Met	G1 y
465					470					475					480
Arg	Tyr	Ser	Ala	Val	G1y	Ser	Val	Thr	Glu	Arg	He	Phe	Thr	Leu	Tyr
				485					490					495	
Tyr	Asp	His	Leu	Gly	Phe	Leu	His	Lys	Leu	Thr	Leu	Gly	Arg	Phe	Glu
			500					505					510		
Ala	Ser	Gly	Pro	Pro	Thr	Ala	Phe	Gly	Asn	Ser	Arg	Asn	Leu	Phe	G1 y
		515					520					525			
Gln	Pro	Pro	Asp	Met	Gly	Phe	Glu	Thr	Ala	Leu	Ala	Pro	Gln	His	Thr
	530					535					540				
Ser	Leu	Asp	Glu	He	He	Phe	Phe	Ala	Tyr	Val	Pro	Glu	Asn	Glu	Pro
545					550					555					560
Gln	Glu	Thr	He	Tyr	Ser	Lys	Lys	Phe	Gly	Asn	He	His	Tyr	G1 y	Lys
				565					570					575	
Val	He	His	Ser	Gly	Lys	Thr	Gly	Arg	Ala	Tyr	He	Arg	Lys	Val	Leu
			580					585					590		
G1n	His	Thr	Thr	Pro	Lys	Gly	Phe	Leu	Ser	Ser	Val	He	Ala	Glu	Met
		595					600					605			
Lys	Glu	Pro	Phe	Gly	Leu	Glu	Glu	Val	Asn	Glu	Ser	Ser	Cys	Leu	Ser
	610					615					620				
Ser	Ser	Leu	Leu	He	Asn	Lys	Ala	G1 y	Asn		Tyr	Lys	Leu	Thr	Leu
625					630					635					640

Asp	Ser	Gln	Val	Val 645	Gln	Ala	Leu	Phe	G1u 650	Asp	Thr	Asp	lle	Glu 655	Lys
Thr	Val	Val	Leu		Gly	Tyr	Ser	Ser	Phe	Leu	He	Thr	Ser		Leu
			660					665					670		
Asp	Asn	Lys	Asn	Ala	Leu	Ala	He	Ala	Thr	Met	Pro	Glu	Ser	Ala	Pro
		675					680					685			
Λsn	Asn 690	Met	Thr	Phe	Leu	Lys 695	Ser	Thr	Trp	Phe	Leu 700	Tyr	Asn	Phe	Gly
Gln	Arg	Asn	Gly	Arg	Thr	Trp	Lys	Ile	Tyr	Ser	Lys	Pro	Cys	Asn	Tyr
705					710					715					720
Trp	Phe	G1n	His	Asp	Asp	Ser	Pro	Ser	Leu	Asn	He	Va]	Lys	Tyr	Пе
				725					730					735	
Asp	Leu	Gly	Asn	Ser	Tyr	Val	Leu	Lys	Ala	Lys	Val	He	Arg	Asn	Ala
			740					745					750		
Lys	Gly	Phe	Arg	Met	Leu	Glu	He	Pro	Leu	Leu	Thr	Val	Phe	Val	G1 y
		755					760					765			
Asn	Pro	Asn	Leu	Leu	Glu	Val	Thr	Ala	Glu	Val	Thr	Phe	Asp	Asp	Thr
	770					775					780				
Asp	Ser	Tyr	Val	lle	Thr	He	Ser	Ala	Ala	Ser	Lys	Val	Leu	His	Gln
785					790					795					800
Gly	Ser	Thr	Ser	Leu	Ala	Phe	He	Met	Trp	Ser	Ala	Ser	Thr	Glu	Cys
				805					810					815	
Phe	Val	Thr	Thr	Met	Val	Pro	Thr	Leu	Lys	Ser	Ser	Cys	Ser	Tyr	Leu
			820					825					830		
Arg	Ser	Met	His	His	He	Pro	Ser	Lys	Phe	He	Pro	Phe	Glu	Asp	Trp
		835					840					845			
He	Ser	Gly	Val	His	Lys	Asp	Ser	Gln	G1 y	Phe	Asn	Leu	He	Lys	Thr
	850					855					860				
Leu	Pro	Пе	Asn	Tyr	Arg	Pro	Pro	Ser	Asn	Met	Gly	11e	Ala	Пе	Pro
865					870					875					880
Leu	Thr	Asp	Asn	Phe	Tyr	llis	Ala	Asp	Pro	Ser	Lys	Pro	He	Pro	Arg
				885					890					895	
Asn	Met	Phe	His	Met	Ser	Lys	Lys	Thr	Gly	Lys	Phe	Lys	GIn	Cys	Ala
			900					905					910		
Asn	Val	Ser	Thr	Arg	Glu	Glu	Cys	Asn	Cys	Thr	Lys	Asp	Gln	Lys	Phe
		915					920					925			

Ser His Ala Val Ala Phe Ser Asp Cys Arg Glu Lys Val Pro Arg Phe Lys Phe Pro Ile Thr Gln Tyr Pro Val Ser Leu Glu Ile Ile Asn Glu Asp Gly Arg Val Pro Leu Gln Ser Pro Tyr Leu Val Thr Val Thr Glu Val Asn Met Arg His Asn Trp Lys Leu Lys His Thr Val Pro Glu Asn lle Lys Arg Met Lys Gln Leu Val Glu Pro lle Leu Gly Ala Ala Val Tyr Asn Pro Ser Gly Leu Asn Leu Ser Ile Lys Gly Ser Glu Leu Phe His Phe Arg Val Thr Val IIe Ser Gly Val Thr Phe Cys Asn Leu IIe Glu Glu Phe Gln Ile Tyr Val Asp Gly Ala Pro Leu Pro Phe Pro Gly His Thr Leu Ile Ala Val Ala Thr Ala Val Val Leu Gly Gly Leu lle Phe Ile Ala Phe Met Phe Gln Leu Gln Gly Ile His Pro Trp Arg Thr Phe Gln Arg Trp lle Arg Arg Asn Gln Glu Lys Phe Ser Ser Ile Ser Leu Ser Glu Leu Ile His Arg Ser Lys Ser Glu Glu

<210> 3907

<211> 324

<212> PRT

<213> Homo sapiens

<400> 3907

Met Arg His Arg Glu Gly Ser Trp Glu Pro Trp Ser Arg Pro Val Gly

1 5 10 15

Glu Pro Pro Glu Ala Gly Trp Asp Tyr Thr Gln Trp Lys Gln Glu Arg
20 25 30

Glu	Gln	lle	Asp	Leu	Ala	Arg	Leu	Ala	Arg	His	Arg	Asp	Ala	Gln	Gly
		35					40					45			
Asp	Trp	Arg	Arg	Pro	Trp	Asp	Leu	Asp	Lys	Ala	Lys	Ser	Thr	Leu	GIn
	50					55					60				
Asp	Cys	Ser	Gln	Leu	Arg	Gly	Glu	Gly	Pro	Ala	Arg	Ala	Gly	Ser	Arg
65					70					75					80
Arg	Gly	Pro	Arg	Ser	His	Gln	Lys	Leu	Gln	Pro	Pro	Pro	Leu	Leu	Pro
				85					90					95	
Asp	Gly	Lys	Gly	Arg	Gly	Gly	Gln	Ala	Asn	Arg	Pro	Ser	Val	Ala	Pro
			100					105					110		
Ala	Thr		Ser	Lys	Ala	Arg		Lys	Glu	Arg	Leu		61 y	Arg	Ala
		115					120					125			
Arg		Trp	Asp	Met	Lys		Asp	Lys	Glu	Glu	Leu	Glu	Gly	Gln	Glu
61	130	61		m.		135	m)	г.		0.1	140				
	Ser	GIn	Ser	lhr		Glu	Thr	Pro	Ser		Glu	Glu	GIn	Ala	
145	Cln	Son	Clu	Mot	150	C1m	C1	A 20 cm	1	155	C	41.	D	41.	160
LyS	GIII	261	G1ÿ	мет 165	GIU	GIN	GIY	Arg	170	GIY	Ser	Ala	Pro		Ala
Ser	Pro	Ala	Lau		Sor	Pro	Clu	Clv		Lve	Gly	Clu	Sor	175 Vol.	A10
561	110	MIG	180	MIG	561	110	Olu	185	110	Lys	Uly	Olu	190	vai	ма
Ser	Thr	Ala		Ser	Val	Pro	Cvs		Pro	Gln	Glu	Pro		Len	Ala
		195					200	501		0111	Old	205	пор	Lea	nia
Pro	Leu		Leu	Ser	Leu	Glv		Ala	Glv	He	Pro		Pro	Arg	Glu
	210	•				215	•				220				
Ser	Gly	Cys	Val	Leu	Gly		Arg	Pro	Gly	Ala	Gln	Glu	Ser	Pro	Val
225					230					235					240
Ser	Trp	Pro	Glu	Gly	Ser	Lys	G]n	Gln	Pro	Leu	Gly	Trp	Ser	Asn	His
				245					250					255	
Gln	Ala	Glu	Leu	Glu	Val	Gln	Thr	Cys	Pro	Glu	Pro	Gln	Arg	G1 y	Ala
			260					265					270		
Gly	Leu	Pro	Glu	Pro	Gly	Glu	Asp	Arg	Ser	Gly	Lys	Ser	Gly	Ala	Gln
		275					280					285			
GIn	Gly	Leu	Ala	Pro	Arg	Ser	Arg	Pro	Thr	Arg	Gly	Gly	Ser	G1n	Arg
	290					295					300				
Ser	Arg	Gly	Thr	Ala	Gly	Val	Arg	Arg	Arg	Thr	Gly	Arg	Pro	Gly	Pro
305					310					315					320

Ala Gly Arg Cys

<210> 3908 <211> 1012 <212> PRT <213> Homo sapiens <400> 3908 Met Met Arg Lys Pro Ser Ser Asp Lys Ile Pro Ser Ile Asp Lys Thr Leu Val Asn Lys Val Val His Ser Ser Val Cys Asn Ile Leu Asn Asp Tyr Gly Ser Gln Asp Ser 11e Trp Lys Asn Ile Asn Ser Asn Gly Glu Asn Leu Ala Arg Arg Leu Thr Ser Ala Val Ile Asn Glu Ile Phe Gln His Gln Val Asn Leu Ile Phe Cys Asp Glu Val Ser Val Ser Ala Cys Leu Pro Leu Glu Ser Lys Asp Val Val Lys Lys Val Gln Lys Leu Ala Gln Thr Ala Ser Lys Glu Cys Gln Thr Ser Ser Pro Tyr Thr lle lle Leu Pro His Lys Phe Leu Glu Asn Val IIe Ser Ala Leu Phe Ser Lys lle Phe Ser Thr lle Ser Ser Thr Lys Thr Lys Glu Pro Glu Asp Asn Leu Ser Thr Glu Leu Asn Phe Leu Gln Met Lys Leu Val Ser Ala Val Ala Thr Glu Ile Ser Gln Asp Lys Tyr Met Thr Ile Gln Tyr Val Glu Thr Leu Gln Ser Asp Asp Glu lle lle Gln Leu Val Val Gln Ser Val Tyr Asn Asn Leu Leu Pro Gln Phe Gly Ser Gln Glu 11e 11e Gln

Asn	Cys	Val	Thr	Ser	Gly		Lys	Пе	Leu	Ser		Asn	Πle	Val	Asp
	210					215					220				
Leu	Val	Leu	Arg	Glu	Val	Ala	Ser	Asn	Gln	Leu	Gln	Ser	Tyr	Phe	Cys
225					230					235					240
Gly	Glu	Leu	Thr	Pro	His	Gln	Cys	Val	Glu	Val	Glu	Asn	Пе	Val	GΙι
				245					250					255	
Lys	lle	Leu	Lys	Asp	Val	Phe	Gln	Thr	Thr	Asp	Val	Pro	Gln	Pro	Lys
			260					265					270		
Pro	Ser	His	Ala	Asp	Lys	Leu	Ser	Tyr	Asn	He	He	Glu	Glu	He	Ala
		275					280					285			
Val	Lys	Phe	Leu	Ser	Lys	Leu	Leu	Ser	Ile	Phe	Pro	Lys	Val	His	Lys
	290					295					300				
Glu	Arg	Thr	Lys	Ser	Leu	Glu	Thr	Asp	Met		Lys	He	Thr	Ser	Lys
305					310					315					320
Va]	Leu	Asn	Ser		Gln	Glu	Phe	He		Lys	Ser	Lys	He		Leu
				325					330					335	
Val	Pro	Pro		Lys	Glu	Ser	Pro		Val	Pro	Val	Ala		Asn	Ala
			340					345					350		
Thr	He		Asn	He	Val	Asn	Ser	He	Tyr	Thr	Ser		Leu	Lys	His
		355					360					365	_	_	
Ser		Ser	Tyr	Thr	Ser		Phe	Lys	Asp	Leu		G1 y	Lys	Ser	Asr
	370			mı		375	*21				380				
	Leu	Ser	Asp	Thr		Gly	Phe	Leu	Met		Asn	Ala	He	Ser	
385	C1	DI	C.1	15	390	12 1	61	C.1	61	395	C		C	6.1	400
Ser	61u	Phe	GIn		GIn	Val	Glu	610		Val	Ser	Asn	Ser		Let
v. t	1	C1.	4.1	405		7.1		0.1	410	17. 1	7.1	1	7.7	415	
vai	Leu	GIU		vai	Lys	11e	Met		Lys	Val	11e	Lys		11e	Asp
C1	1	1	420	1	C1	1	C	425	C	A	1	C1	430	TI.	1
GIU	Leu		ser	Lys	GIU	Lys	Ser 440	ser	ser	Arg	Lys		Leu	ınr	Leu
Aan	Alo	435	Lou	Lou	C1	C1		Lau	Ala	Lau	Dha	445	A 1 a	Luc	Lav
ASP	450	Lys	Leu	Leu	GIU	455	Val	Leu	Ala	Leu	460	Leu	Ата	Lys	Let
116		Lou	Dro	Cor	Con		Can	Lva	Aon	C1,,		Aon	Lau	Con	I
465	ит В	Leu	110	Se1	3er 470	SeI.	Ser	LyS	ush	475	LyS	ASH	Leu	SeI.	480
	Glo	Lou	Ace	Lve		A10	Ser	GI.s.	Lou		Lvc	Lov	Vol	Than	
1111	UIU	1, GU	11011	485	116	nia	961	0111	490	OC1	Lyo	Leu	, a1	495	MIC
				100					100					100	

Glu	He	Ser	Arg	Ser	Ser	He	Ser	Leu	lle	Ala	Ser	Asp	Pro	Glu	Glu
			500					505					510		
His	Cys	Leu	Asn	Pro	Glu	Asn	Thr	Glu	Arg	He	Tyr	Gln	Val	Val	Asp
		515					520					525			
Ser	Val	Tyr	Ser	Asn	11e	Leu	Gln	Gln	Ser	Gly	Thr	Asn	Lys	Glu	Phe
	530					535					540				
Tyr	Tyr	Asp	He	Lys	Asp	Thr	Asn	Thr	Ala	Phe	Pro	Lys	Lys	Val	Ala
545					550					555					560
Ser	Leu	He	11e	Asp	Gly	Val	Ser	Ser	Phe	Pro	Leu	Asp	Thr	lle	Asn
				565					570					575	
Ser	Thr	lle	Ser	Asn	Ala	Asp	Leu	Ser	Gly	Glu	Leu	Asp	Val	Asn	Arg
			580					585					590		
He	Val	Gln	Lys	Ala	Gln	Glu	His	Ala	Phe	Asn	Val	He	Pro	Glu	Leu
		595					600					605			
Glu	Gln	Glu	Lys	Leu	Asp	Gln	Asn	Leu	Ser	Glu	Glu	Glu	Ser	Pro	He
	610					615					620				
Lys	Ile	Val	Pro	His	Val	G1 y	Lys	Lys	Pro	Val	Lys	He	Asp	Pro	Lys
625					630					635					640
He	lle	Ser	Glu	His	Leu	Ala	Val	lle	Ser	He	Lys	Thr	Gln	Pro	Leu
				645					650					655	
Glu	Lys	Leu	Lys	Gln	Glu	Cys	Leu	Lys	Arg	Thr	Gly	His	Ser	lle	Ala
			660					665					670		
`Glu	Leu	Arg	Arg	Ala	Ser	He	Ser	Gly	Arg	Asn	Tyr	Ser	Leu	Gly	Ser
		675					680					685			
Pro	Asp	Leu	Glu	Lys	Arg	Lys	Thr	Glu	Arg	Arg	Thr	Ser	Leu	Asp	Lys
	690					695					700				
Thr	Gly	Arg	Leu	Asp	Val	Lys	Pro	Leu	Glu	Ala	Val	Ala	Arg	Asn	Ser
705					710					715					720
Phe	Gln	Asn	He	Arg	Lys	Pro	Asp	He	Thr	Lys	Val	Glu	Leu	Leu	Lys
				725					730					735	
Asp	Val	Gln	Ser	Lys	Asn	Asp	Leu	lle	Val	Arg	Leu	Glu	Ala	His	Asp
			740					745					750		
Пе	Asp	Gln	Val	Tyr	Leu	Glu	Asn	Tyr	11e	Lys	Glu	Glu	Arg	Asp	Ser
		755					760					765			
Asp	Glu	Asp	Glu	Val	Val	Leu	Thr	Gln	Thr	Phe	Ala	Lys	Glu	Glu	G1 y
	770					775					780				

```
lle Lys Val Phe Glu Asp Gln Val Lys Glu Val Lys Lys Pro Ile Gln
                    790
Ser Lys Leu Ser Pro Lys Ser Thr Leu Ser Thr Ser Ser Leu Lys Lys
                805
                                    810
Phe Leu Ser Leu Ser Lys Cys Cys Gln Thr Thr Ala Ser Ala Asn Ile
            820
                                825
Glu Ser Thr Glu Ala Ile Ser Asn Gln Val Ile Glu Ser Lys Glu Thr
                            840
                                                 845
His Val Lys Arg Ala Val Ala Glu Leu Asp Met Ala Thr Pro Lys Thr
    850
                        855
                                             860
Met Pro Glu Thr Ala Ser Ser Ser Trp Glu Glu Lys Pro Gln Cys Lys
                    870
                                         875
                                                             880
Lys Glu Glu Lys Asn Leu Val Thr Glu Pro Thr His Tyr Phe Ile His
                885
                                    890
Arg 11e Met Ser Ser Ser Ser Tyr Asn Glu Glu Asp Leu 11e Ser Ser
            900
                                905
                                                     910
Thr Gly Glu Ala Glu Asp Cys His Ser Asp Pro Ser Ala Lys Ile Leu
                            920
Glu Glu Ser Ser Gln Glu Gln Lys Pro Glu His Gly Asn Ser Val Lys
    930
                        935
                                             940
Phe Ile Thr Ile Phe Glu Arg Ser Lys Asp Val Leu Gly Ser Ala Asn
945
                    950
                                        955
                                                             960
Pro Ser Lys Glu Val Ile Ser Glu Thr Pro Lys Pro Asp Val Ser Lys
                965
                                    970
                                                         975
Gln Gly Ser Lys Met Leu Thr Lys Met Ser Ser Ala Leu Ser Lys Val
            980
                                985
                                                     990
Phe Ser Gln Cys Asn Thr Asn lle Ser Arg Ser Ser Ser Pro Ala His
                           1000
                                                1005
Gln Asp Glu His
   1010
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<210> 3909

<211> 829

<212> PRT

<213≻ Homo sapiens

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Thr	Asn	lle	Gly	Leu	Thr	Cys	Gln	Glu	Val	Lys	Ala	Leu	Arg	Glu	Lys
			20					25					30		
Ala	Trp	Ser	Arg	Thr	Asn	Glu	Gly	Asn	Ala	Met	Ser	Gln	Ser	Leu	Val
		35					40					45			
Пе	Tyr	Gly	Ala	Ser	Lys	Glu	Asn	Ser	Glu	Gly	Phe	His	Glu	Ser	Lys
	50					55					60				
Met	Thr	Asn	Thr	Glu	Gly	Val	Asn	Lys	Gly	He	Tyr	Phe	Ser	Tyr	Pro
65					70					75					80
Cys	Arg	Arg	His	Ser	Cys	Ala	Val	Val	Asn	He	Pro	Ala	Pro	Cys	Val
				85					90					95	
Asn	Lys	Met	lle	Ser	His	He	Gln	Asp	Val	Glu	Ser	Lys	lle	Gln	Glu
			100					105					110		
His	Leu	Lys	Arg	Phe	Glu	Thr	Ser	Phe	Glu	Glu	Trp	Ser	Arg	Thr	Ser
		115					120					125			
Ser	Thr	Lys	Asp	Leu	Lys	Glu	Asp	Trp	Ser	Va]	Thr	Thr	Pro	Val	Lys
	130					135					140				
Glu	Val	Lys	Pro	Gly	Glu	Lys	Arg	Asp	Glu	Lys	Cys	Pro	G]u	Leu	Lys
145					150					155					160
Gln	Glu	Met	Glu	Thr	Leu	Leu	Ser	Glu	Ala]]]e	Arg	Leu	He	Lys	Ser
				165					170					175	
Leu	Glu	Thr	Asp	Arg	Ala	Asp	Ala	Glu	Glu	Ala	Leu	Lys	Gln	Gln	Arg
			180					185					190		
Ser	Arg	Lys	Asn	Met	He	Asn	Met	Lys	11e	Asp	Ser	Trp	Ser	Va]	Trp
		195					200					205			
Lys		Gln	Glu	Leu	Pro		Ala	Val	G1n	Lys		His	Glu	Ala	Tyr
	210					215					220				
Leu	Ser	Asp	Val	He		Leu	GIn	Trp	His		Glu	Asp	Lys	Ala	
225					230					235					240
Gln	Leu	Gln	His		Glu	Lys	GIn	Lys		Glu	Leu	Glu	Glu		Asn
				245					250					255	

Ala	Lys	lle	G1n 260	Ala	Asp	He	Asp	Tyr 265	Met	Asn	Glu	His	Gly 270	Pro	Leu
Lou	Asn	Ser		Gln	Aen	Gln	Glu		Gln	Asn	Len	lve		Hie	Tyr
LCU	пор	275	Lys	OIII	71311	OTH	280	i,c u	0.11	пор	Leu	285	изп	шъ	1 9 1
Lvs	Lvs		Met	Glu	Val	Met		Len	His	Aro	Lvs		Asn	Glu	Glu
12,13	290	Lys	inc c	Giu	101	295	пор	r.c.u	1113	M S	300	101	11311	OTU	Giu
Leu		Glu	Ala	Leu	Glu		Cvs	Glu	Asn	Ala		Leu	lvs	Ala	Gln
305	0,4	014		200	310		0,0	ora	71011	315	8	БСС	12,70	717 C.	320
	Ile	Lvs	Glu	Glu		Asp	Lvs	Asp	Ile		Gln	Asp	Glu	Lvs	
		,		325		,		•	330	,				335	
lle	Glu	Ala	Tyr		Arg	Glu	He	Tyr	Gln	Leu	Asn	Ser	Leu	Phe	Asp
			340					345					350		_
His	Tyr	Ser	Ser	Ser	Val	Пe	Asn	Va]	Asn	Thr	Asn	He	Glu	Glu	Glu
		355					360					365			
G]u	Glu	Glu	Val	Thr	Glu	Ala	lle	Arg	Glu	Thr	Lys	Ser	Ser	Lys	Asn
	370					375					380				
Glu	Leu	His	Ser	Leu	Ser	Lys	Met	Leu	Glu	Asp	Leu	Arg	Arg	Val	Tyr
385					390					395					400
Asp	Gln	Leu	Thr	Trp	Lys	Gln	Lys	Ser	His	Glu	Asn	Gln	Tyr	Leu	Glu
				405					410					415	
Ala	Val	Asn	Asp	Phe	Tyr	Ala	Ala	Lys	Lys	Thr	Trp	Asp	He	Glu	Leu
			420					425					430		
Ser	Asp	Val	Ala	Lys	Asp	Phe	Ser	Ala	He	Ser	Leu	Ala	Cys	Thr	Lys
		435					440					445			
Leu	Thr	Glu	Asp	Asn	Lys	Lys	Leu	Glu	He	Asp	He	Asn	Lys	Пе	Thr
	450					455					460				
Glu	Lys	Thr	Asn	Glu	Ser	lle	Arg	Lys	Lys	Ser	Lys	Tyr	Glu	Ser	Glu
465					470					475					480
He	Lys	Tyr	Leu		Пе	Met	Lys	Leu	Lys	Asn	Asp	Lys	His		Lys
		_		485		_			490					495	
Asn	lle	Tyr		Glu	Ala	Tyr	Arg		Gly	Thr	Leu	Phe		Leu	Thr
			500		6.1		61	505		2.1		6.1	510		
Lys	HIS		lhr	Asp	Glu	Met		Asp	Lys	He	Ala		Val	Arg	Arg
1 ,	Dl	515	C1	Λ	C1	C1	520	1	1	1	1	525	C1	C1	C1.
LyS	530	Lys	01y	игg	GIU	535	rne	Leu	Lys	Lys	Leu 540	ınr	GIN	01 y	610
	0.00					ししし					0.10				

Val	Ala	Ala	Gly	Met	Val	Leu	Gln	Lys	Lys	Leu	Tyr	Ser	He	Tyr	Glu
545					550					555					560
Val	Gln	Ala	Leu	Glu	Arg	Lys	Glu	Leu	He	Lys	Asn	Arg	Ala	He	Cys
				565					570					575	
Ala	Met	Ser	Leu	Ala	Glu	Leu	Gln	Glu	Pro	Leu	Leu	Gln	Leu	Glu	Asp
			580					585					590		
Glu	Ala		Arg	He	Arg	Ser		Asn	Lys	Glu	His		Val	Ser	Lys
		595					600					605			
Arg		Ala	lle	Phe	Lys		Leu	Glu	Ala	Thr		Ser	Lys	Thr	Met
	610	_				615					620				
	Phe	Tyr	Ala	Lys		Asn	Glu	Leu	Asn		Glu	Leu	Lys	Ala	
625	C.1	61			630	151		6.1	(E)	635					640
Glu	61u	Glu	Lys		Ser	Phe	Asp	GIn		Leu	Glu	He	Leu		Asn
1	DI	11	TI	645		131	,		650			6.1	m.	655	ъ.
Lys	rne	11e	Thr	wer	Arg	rne	Lys		61u	HIS	Ala	GIn		Va]	Phe
Acn	uic	Tun	660	Cla	C1	Luc	1	665	Cua	C1	C1	A	670	DI	C1
nsp	1115	675	Met	GIH	Glu	Lys	680	ASP	Cys	GIU	Glu	Arg 685	11e	rne	GIU
Glu	Asn		Arg	Phe	Ara	Val		Lou	Δla	Val	Δκα		lve	Thr	Lou
Olu	690	0111	M 8	THE	Mg	695	LCu	Leu	Ma	101	700	OIII	Lys	1111	Leu
Gln		Thr	Gln	Lvs	He		Ala	Asn	Ser	Leu		Glu	Asn	Leu	Ara
705	[-			-2,	710		7110	.10,5	001	715	010	074	7,011	Lea	720
	Ala	Gln	Glu	Tvr		Gln	Leu	Gln	Phe		Phe	Len	Lvs	Glu	
				725					730				,	735	, -
Asp	Asn	Tyr	Phe	Asn	He	Tyr	Asp	Lys	Gln	Leu	Ser	Leu	Asp		Ser
			740					745					750		
He	Arg	Asp	Lys	Lys	Gln	Leu	Cys	Gln	Leu	Gln	Arg	Arg	Met	His	Thr
		755					760					765			
Leu	Тгр	G1n	Glu	His	Phe	Lys	Leu	Val	Val	Leu	Phe	Ser	Gln	Met	Arg
	770					775					780				
Leu	Ala	Asn	Phe	Gln	Thr	Asp	Ser	Gln	Glu	Ser	He	Gln	Lys	He	Leu
785					790					795					800
Ala	Val	Gln	G] u	Glu	Ser	Ser	Asn	Leu	Met	Gln	His	lle	Leu	Gly	Phe
				805					810					815	
Phe	`G]n	Thr	Leu	Thr	Asp	Gly	Thr	Cys	Glu	Asn	Asp	Gly			
			820					825							

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<211> 214
<212> PRT
<213> Homo sapiens
<400> 3910
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 1
                  5
                                     10
                                                          15
Pro Ser His Gly Leu Lys Ala Met Gly Gly Glu Gly Ser Cys Gln Asp
                                 25
Asp Thr Glu Ser Gly Ala Leu Thr Phe Leu Pro Ser Asp Asp Ala Gln
                             40
                                                 45
Pro Gly Lys Ala Leu Arg Pro Gln Arg Ser Gly Pro Gly Gly Ser Glu
                         55
Arg Arg Gly Arg Gly Trp Gly Arg Ala Gly Ala Leu Glu Glu Gln Val
                     70
                                         75
Arg Gln Gly Pro Ser Ala Gln Gly His Pro Arg Thr Gln Ala Arg Ser
                 85
                                     90
Arg Pro Cys Ser Ala Arg Pro His Cys Ser Cys Gly Lys Gly Lys His
                                105
Gly Ala Leu Pro Gln Gly Gln Cys Ser Ala Trp Leu Glu Leu Met Thr
                           120
                                                125
Val Thr Val Pro Cys Cys His His Cys Ser His Cys Pro Gly Gly Gln
    130
                        135
Pro Gly Pro Gln Leu His Arg Ala Trp Thr Val Trp Ser Trp Ala Val
                    150
                                       155
Pro Ser Ser Ala Ser Arg Ala Cys Gly Asp Gly His Arg Arg Ser Thr
                165
                                    170
Cys Gln Ala Gln Gly Ser Cys Thr Gly Leu Pro Pro Leu Arg Gly Cys
                                185
                                                    190
Leu Pro Arg Leu Val Pro Gly Arg Pro Cys Pro His Leu Arg Gln Gln
                            200
                                                205
Asp Lys Gly Lys Trp Asn
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<210> 3910

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<211> 950
<212> PRT
<213> Homo sapiens
<400> 3911
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 1
                  5
                                      10
                                                          15
Ser Lys Leu Asn Thr Ser Val Asp Thr His Lys Ile Lys Ser Ser Pro
                                  25
Ser Pro Glu Val Val Lys Pro Lys Ile Thr His Ser Pro Asp Ser Val
                             40
                                                  45
Lys Ser Lys Ala Thr Tyr Val Asn Ser Gln Ala Thr Gly Glu Arg Arg
                         55
Leu Ala Asn Lys lle Glu His Glu Leu Ser Arg Cys Ser Phe His Pro
                     70
                                         75
lle Pro Thr Arg Ser Ser Thr Leu Glu Thr Thr Lys Ser Pro Leu lle
                 85
                                     90
Ile Asp Lys Asn Glu His Phe Thr Val Tyr Arg Asp Pro Ala Leu Ile
                                105
                                                     110
Gly Ser Glu Thr Gly Ala Asn His 11e Ser Pro Phe Leu Ser Gln His
                            120
Pro Phe Pro Leu His Ser Ser Ser His Arg Thr Cys Leu Asn Pro Gly
    130
                        135
Thr His His Pro Ala Leu Thr Pro Ala Pro His Leu Leu Ala Gly Ser
                    150
                                        155
Ser Ser Gln Thr Pro Leu Pro Thr 11e Asn Thr His Pro Leu Thr Ser
                165
                                    170
                                                         175
Gly Pro His His Ala Val His His Pro His Leu Leu Pro Thr Val Leu
Pro Gly Val Pro Thr Ala Ser Leu Leu Gly Gly His Pro Arg Leu Glu
        195
                            200
                                                205
Ser Ala His Ala Ser Ser Leu Ser His Leu Ala Leu Ala His Gln Gln
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<210> 3911

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225					230					235					240
His	Pro	Ser	Ala	Ser	Tyr	Asn	Gln	Leu	G1 y	Leu	Tyr	Pro	Пе	He	Trp
				245					250					255	
Gln	Tyr	Pro	Asn	Gly	Thr	His	Ala	Tyr	Ser	Gly	Leu	Gly	Leu	Pro	Ser
			260					265					270		
Ser	Lys	Trp	Val	His	Pro	Glu	Asn	Ala	Val	Asn	Ala	Glu	Ala	Ser	Leu
		275					280					285			
Arg	Arg	Asn	Ser	Pro	Ser	Pro	Trp	Leu	His	Gln	Pro	Thr	Pro	Val	Thr
	290					295					300				
Ser	Ala	Asp	Gly	He	Gly	Leu	Leu	Ser	His	Пе	Pro	Val	Arg	Pro	Ser
305					310					315					320
Ser	Ala	Glu	Pro		Arg	Pro	Leu	Lys		Thr	Ala	His	Ser		Pro
				325					330					335	
Pro	Leu	Thr		Thr	Leu	Val	Asp		His	Lys	Glu	Glu		Glu	Arg
		751	340	<i>a</i> .	15			345				6 21	350		
Lys	Ala		Met	Glu	Pro	Leu		Ser	Val	Ala	Ser		Ser	Ala	Lys
		355					360	C1	TI	C.I		365	6	,,,	
Asn		Leu	Asp	Leu	Asn		Ser	Gln	Inr	GIŸ		Asp	Cys	HIS	Leu
uia	370	u; a	Dho	Vol	Aan	375	Vo l	Lan	Aan	Cla	380	Cla	1	Duo	Due
385	AIG	птѕ	rne	vai	Asp 390	F10	vai	Leu	ASII	395	Leu	GIH	му	F10	400
	Clu	The	C1v	Clu	Arg	Lon	A c p	Lve	Tur		Clu	Clu	Hic	Ara	
OIII	Olu	1111	Oly	405	Aig	Leu	АЗП	rys	410	ris	G1 u	O1 a	111.5	415	AI g
He	Len	Gln	Glu		lle	Asn	Val	Ala		Phe	Thr	Thr	Lvs		lvs
.1.1	150 0	(,111	420	501	110	пфр	• (,1)	425	130	1 110.	,,,,	111.1	430	.110	12,5
G1 v	Leu	Glu		Glu	Arg	Glu	Asn		Ser	Arg	Val	Ala		Ser	Ser
		435			0		440					445			
Ser	Ser	Pro	Lys	Ser	His	He]]e	Lys	Gln	Asp	Met	Asp	Va]	Glu	Arg
	450					455		-			460				
Ser	Val	Ser	Asp	Leu	Tyr	Lys	Met	Lys	His	Ser	Val	Pro	Gln	Ser	Leu
465					470					475					480
Pro	Gln	Ser	Asn	Tyr	Phe	Thr	Thr	Leu	Ser	Asn	Ser	Val	Val	Asn	Glu
				485		•			490					495	
Pro	Pro	Arg	Ser	Tyr	Pro	Ser	Lys	Glu	Val	Ser	Asn	He	Tyr	Gly	Asp
			500					505					510		

Lys	Gln	Ser	Asn	Ala	Leu	Ala	Ala	Ala	Ala	Ala	Asn	Pro	Gln	Thr	Leu
		515					520					525			
Thr	Ser	Phe	lle	Thr	Ser	Leu	Ser	Lys	Pro	Pro	Pro	Leu	lle	Lys	His
	530					535					540				
Gln	Pro	Glu	Ser	Glu	Gly	Leu	Val	Gly	Lys	He	Pro	Glu	His	Leu	Pro
545					550					555					560
His	Gln	11e	Ala	Ser	His	Ser	Val	Thr	Thr	Phe	Arg	Asn	Asp	Cys	Arg
				565					570					575	
Ser	Pro	Thr	His	Leu	Thr	Val	Ser	Ser	Thr	Asn	Thr	Leu	Arg	Ser	Met
			580					585					590		
Pro	Ala	Leu	His	Arg	Ala	Pro	Val	Phe	His	Pro	Pro	lle	His	His	Ser
		595					600					605			
Leu	Glu	Arg	Lys	Glu	Gly	Ser	Tyr	Ser	Ser	Leu	Ser	Pro	Pro	Thr	Leu
	610					615					620				
	Pro	Val	Met	Pro			Ala	Gly	Gly		Val	Gln	Glu	Ser	Gln
625					630					635					640
Lys	Pro	Pro	Thr		He	Pro	Glu	Pro		Ąsp	Ser	G1n	Ala		Phe
_	_			645					650					655	
Lys	Ser	Ser		Glu	Gln	Ser	Leu		Glu	Met	Trp	Arg	Pro	Asn	Asn
			660	0.1		m)	0.1	665					670		
Asn	Leu		Lys	Glu	Lys	Thr		Trp	His	Val	Glu		Ser	Ser	G1 y
		675					680					685			
Lys		GIn	Ala	Ala	Met		Ser	Val	Пе	Val		Pro	Ser	Ser	Ser
ть	690	ть	Δ	C	И	695	41.	.	C1	,	700	C			
	Lys	Inr	Asp	ser		Pro	Ala	Met	GIn		Ala	Ser	Lys	Asp	-
705 Vo.1	Son	C1	Amor	Con	710	A.1.o.	C1	Ala	Hi a	715	Than	A	Cua	1	720
чат	261	Giu	Alg	725	261	нта	GIV	АТа	730	Lys	Imi	ASP	Cys		Lys
Lou	Ala	Clu	Ala		Clu	The	£1.	Arra		Ha	Lou	Dno	Asn	735	Aco
Leu	nia	Uju	740	01 y	GIU	1111	Q1 Å	745	116	116	Leu	110	750	(81	ASH
Sor	Acn	Sor		Hic	The	Lve	Sor		Lve	Acn	Pho	Cln.	Ala	Val	Sor
561	пор	755	V ()	111.5	1113	Lyo	760	Olu	rys	изп	THE	765	MIG	161	261
Gln	Glv		Val	Pro	Ser	Ser		Met	Ser	Ala	Val		Thr	Met	Cve
V211	770	201			561	775	, (11	.40.0	201	. I I CI	780	43511	1 113	.mc t	Cys
Asn		Lys	Thr	Asp	Val		Thr	Ser	Ala	Ma		Thr	Thr	Ser	Val
785		,-	• • •		790			~ ~ .		795				~~1	800

Ser Ser Trp Gly Gly Ser Glu Val 11e Ser Ser Leu Ser Asn Thr 11e 810 Leu Ala Ser Thr Ser Ser Glu Cys Val Ser Ser Lys Ser Val Ser Gln 830 Pro Val Ala Gln Lys Gln Glu Cys Lys Val Ser Thr Thr Ala Pro Val 840 845 Thr Leu Ala Ser Ser Lys Thr Gly Ser Val Val Gln Pro Ser Ser Gly 855 860 Phe Ser Gly Thr Thr Asp Phe Ile His Leu Lys Lys His Lys Ala Ala 870 875 880 865 Leu Ala Ala Ala Gln Tyr Lys Ser Ser Asn Ala Ser Glu Thr Glu Pro 885 890 Asn Ala IIe Lys Asn Gln Thr Leu Ser Ala Ser Leu Pro Leu Asp Ser 900 905 910 Thr Val Ile Cys Ser Thr lle Asn Lys Ala Asn Ser Val Gly Asn Gly 920 Gln Ala Ser Gln Thr Ser Gln Pro Asn Tyr His Thr Lys Leu Lys Lys 935 940 Ala Trp Leu Thr Arg His 945 950

<210> 3912

<211> 112

<212> PRT

<213> Homo sapiens

<400> 3912

Met 11e Ser Val His Cys Asn Leu Cys Leu Pro Gly Ser Ser Asn Phe 1 5 10 15

Cys Ala Ser Ala Ser Arg Val Ala Gly 11e Thr Gly Met His His His IIis 20 25 30

Val Trp Leu 11e Phe Val Phe Leu Val Glu Thr Gly Phe His IIis Val 35 40 45

<210> 3913

<211> 265

<212> PRT

<213> Homo sapiens

<400> 3913 Met Arg Asp Leu Gly Glu Asn Thr Ala Ser Arg Asg Asn Ala Pro Ala His Pro Ser Arg Asn Pro His His Leu Pro Pro Thr Pro Asp Gln Ser Ser Arg Arg Pro Gly Val Ser His Gln Arg Ala Glu Arg Ala Phe Glu Leu Leu Leu His His Asp Gln Asp Ala Leu Gly His Leu Val His Val Cys Val His Gln Ser Cys Ser Glu Ser Pro Gln Gly Leu Phe His Asp Ala His Pro Gly Val Thr Leu Thr Leu Gly Gln Glu Glu Lys Ala Cys Pro Glu Asp Ser Ala Ser Ser Ser Ser Ser Leu Pro Ala Pro Ser Val Leu Glv Ala His Thr Gly Val Gly Pro Gln Ala Gly Gly His Val Pro Gly Trp Gln Asp Leu Ser Thr Val Lys Leu Asp Ala Pro Ala Gly Pro

Val Leu Pro Ala Arg Ile Pro Leu Pro Gln Asp Ala Leu His Thr Leu

Arg Ile Pro Ser Arg Cys Ser Gly Ala Cys Thr Glu Gly Leu Gly Pro 170 165 Ala Pro Gly Asn Ser Lys Glu Ala Asn Gly Phe Met Ser Arg Phe Cys 185 190 Gln lle Ala Ser Glu Ala Ala Leu Phe Ala Val Ala Ala Glu Cys Arg 195 200 205 Ala Gly His Leu Ser Gly Gln Ser Gly Ala Leu Leu Pro Cys Ile Ser 215 Trp Ala Met Arg Gly Asp Leu Cys Pro Leu His Arg Ser Cys Val Pro 225 230 235 240 Cys Ala Cys Asp Arg Val Phe Pro Val Tyr Ser Met Leu Leu His Val 245 250 255 Phe Gln Phe Arg Phe Val Val Cys Glu 260 265

<210> 3914

<211> 138

<212> PRT

<213> Homo sapiens

<400> 3914

Met Ser Thr Val Gly Leu Phe His Phe Pro Thr Pro Leu Thr Arg 11e

1 5 10 15

Cys Pro Ala Pro Trp Gly Leu Arg Leu Trp Glu Lys Leu Thr Leu Leu 20 25 30

Ser Pro Gly 11e Ala Val Thr Pro Val Gln Met Ala Gly Lys Lys Asp 35 40 45

Tyr Pro Ala Leu Leu Ser Leu Asp Glu Asn Glu Leu Glu Glu Gln Phe 50 55 60

Val Lys Gly His Gly Pro Gly Gly Gln Ala Thr Asn Lys Thr Ser Asn
65 70 75 80

Cys Val Val Leu Lys His 11e Pro Ser Gly 11e Val Val Lys Cys His
85 90 95

Gln Thr Arg Ser Val Asp Gln Asn Arg Lys Leu Ala Arg Lys 11e Leu 100 105 110 Gln Glu Lys Val Asp Val Phe Tyr Asn Gly Glu Asn Ser Pro Val His
115
120
125
Lys Glu Lys Arg Glu Ala Ala Lys Lys Lys
130
135

<210> 3915

<211> 297

<212> PRT

<213> Homo sapiens

<400> 3915

Met Tyr lle Ser Pro Pro Lys Asp Trp Trp Asp Ala Gly Asp Pro Ser

1 5 10 15

Leu Pro lle Arg Thr Pro Ala Met lle Gly Cys Ser Phe Val Val Asn

Leu Pro 11e Arg Inr Pro Ala Met 11e Gly Cys Ser Phe Val Val Ash
20 25 30

Arg Lys Phe Phe Gly Glu Ile Gly Leu Leu Asp Pro Gly Met Asp Val 35 40 45

Tyr Gly Gly Glu Asn lle Glu Leu Gly Ile Lys Val Trp Leu Cys Gly 50 55 60

Gly Ser Met Glu Val Leu Pro Cys Ser Arg Val Ala His 11e Glu Arg
65 70 75 80

Lys Lys Lys Pro Tyr Asn Ser Asn 11e Gly Phe Tyr Thr Lys Arg Asn 85 90 95

Ala Leu Arg Val Ala Glu Val Trp Met Asp Asp Tyr Lys Ser His Val 100 105 110

Tyr 11e Ala Trp Asn Leu Pro Leu Glu Asn Pro Gly 11e Asp 11e Gly
115 120 125

Asp Val Ser Glu Arg Arg Ala Leu Arg Lys Ser Leu Lys Cys Lys Asn 130 135 140

Phe Gln Trp Tyr Leu Asp His Val Tyr Pro Glu Met Arg Arg Tyr Asn 145 150 155 160

Asn Thr Val Ala Tyr Gly Glu Leu Arg Asn Asn Lys Ala Lys Asp Val 165 170 175

Cys Leu Asp Gln Gly Pro Leu Glu Asn His Thr Ala Ile Leu Tyr Pro 180 185 190 Cys His Gly Trp Gly Pro Gln Leu Ala Arg Tyr Thr Lys Glu Gly Phe 200 205 Leu His Leu Gly Ala Leu Gly Thr Thr Thr Leu Leu Pro Asp Thr Arg 215 220 Cys Leu Val Asp Asn Ser Lys Ser Arg Leu Pro Gln Leu Leu Asp Cys 225 230 235 240 Asp Lys Val Lys Ser Ser Leu Tyr Lys Arg Trp Asn Phe Ile Gln Asn 245 250 Gly Ala Ile Met Asn Lys Gly Thr Gly Arg Cys Leu Glu Val Glu Asn 260 265 270 Arg Gly Leu Ala Gly 11e Asp Leu 11e Leu Arg Ser Cys Thr Gly Gln 280 285 Arg Trp Thr Ile Lys Asn Ser Ile Lys

295

<210> 3916

290

<211> 978

<212> PRT

<213> Homo sapiens

<400> 3916

Met Ala Val Lys Thr Ser Glu Val Met Ala Gln Leu Thr Glu Ser Arg I 5 10 15 Gln Ser Ile Leu Lys Leu Glu Ser Glu Leu Glu Asn Lys Asp Glu Ile \cdot 20 25 30 Leu Arg Asp Lys Phe Ser Leu Met Asn Glu Asn Arg Glu Leu Lys Val 35 40 45

Arg Val Ala Ala Gln Asn Glu Arg Leu Asp Leu Cys Gln Gln Glu 11e 50 55 60

Glu Ser Ser Arg Val Glu Leu Arg Ser Leu Glu Lys 11e 11e Ser Gln
65 70 75 80

Leu Pro Leu Lys Arg Glu Leu Phe Gly Phe Lys Ser Tyr Leu Ser Lys 85 90 95

Tyr Gln Met Ser Ser Phe Ser Asn Lys Glu Asp Arg Cys lle Gly Cys

			100					105					110		
Cys	Glu	Ala	Asn	Lys	Leu	Val	He	Ser	Glu	Leu	Arg	He	Lys	Leu	Ala
		115					120					125			
He	Lys	Glu	Ala	Glu	He	Gln	Lys	Leu	His	Λla	Asn	Leu	Thr	Ala	Asn
	130					135					140				
Gln	Leu	Ser	Gln	Ser	Leu	11e	Thr	Cys	Asn	Asp	Ser	Gln	Glu	Ser	Ser
145					150					155					160
Lys	Leu	Ser	Ser	Leu	Glu	Thr	Glu	Pro	Val	Lys	Leu	Gly	Gly	His	Gln
				165					170					175	
Val	Ala	Glu	Ser	Val	Lys	Asp	Gln	Asn	Gln	His	Thr	Met	Asn	Lys	Gln
			180					185					190		
Tyr	Glu	Lys	Glu	Arg	Gln	Arg	Leu	Val	Thr	Gly	lle	Glu	Glu	Leu	Arg
		195					200					205			
Thr	Lys	Leu	He	Gln	Пе	Glu	Ala	Glu	Asn	Ser	Asp	Leu	Lys	Val	Asn
	210					215					220				
Met	Ala	His	Arg	Thr	Ser	Gln	Phe	Gln	Leu	He	Gln	Glu	Glu	Leu	Leu
225					230					235					240
Glu	Lys	Ala	Ser	Asn	Ser	Ser	Lys	Leu	Glu	Ser	Glu	Met	Thr	Lys	Lys
				245					250					255	
Cys	Ser	Gln	Leu	Leu	Thr	Leu	Glu	Lys	Gln	Leu	Glu	Glu	Lys	lle	Val
			260					265					270		
Ala	Tyr	Ser	Ser	11e	Ala	Ala	Lys	Asn	Ala	Glu	Leu	Glu	Gln	Glu	Leu
		275					280					285			
Met	Glu	Lys	Asn	Glu	Lys	He	Arg	Ser	Leu	Glu	Thr	Asn	He	Asn	Thr
	290					295					300				
Glu	His	Glu	Lys	Пe	Cys	Leu	Ala	Phe	Glu	Lys	Ala	Lys	Lys	He	
305					310					315					320
Leu	Glu	Gln	His	Lys	Glu	Met	Glu	Lys	Gln	lle	Glu	Arg	Leu	Glu	Ala
				325					330					335	
Gln	Leu	G] u	Lys	Lys	Asp	Gln	G] n	Phe	Lys	G1 u	GIn	Glu	Lys	Thr	Met
			340					345					350		
Ser	Met	Leu	Gln	Gln	Asp	Пе	He	Cys	Lys	Gln	His	His	Leu	Glu	Ser
		355					360					365			
Leu		Arg	Leu	Leu	Thr		Ser	Lys	Gly	Glu		Lys	Lys	Glu	Asn
	370					375					380			_	
Met	Lys	Lys	Asp	Glu	Ala	Leu	Lys	Ala	Leu	Gln	Asn	Gln	Val	Ser	Glu

385					390					395					400
Glu	Thr	He	Lys	Va]	Arg	Gln	Leu	Asp	Ser	Ala	Leu	Glu	He	Cys	Lys
				405					410					415	
Glu	Glu	Leu	Val	Leu	His	Leu	Asn	Gln	Leu	Glu	Gly	Λsn	Lys	Glu	Lys
			420					425					430		
Phe	Glu	Lys	Gln	Leu	Lys	Lys	Lys	Ser	Glu	Glu	Val	Tyr	Cys	Leu	Gln
		435		,			440					445			
Lys	Glu	Leu	Lys	lle	Lys	Asn	His	Ser	Leu	Gln	Glu	Thr	Ser	Glu	Gln
	450					455					460				
Asn	Val	Ile	Leu	Gln	His	Thr	Leu	Gln	Gln	Gln	Gln	Gln	Met	Leu	Gln
465					470					475					480
Gln	Glu	Thr	11e	Arg	Asn	Gly	Glu	Leu	Glu	Asp	Thr	Gln	Thr	Lys	Leu
				485					490					495	
Glu	Lys	Gln	Val	Ser	Lys	Leu	Glu	Gln	Glu	Leu	Gln	Lys	Gln	Arg	Glu
			500					505					510		
Ser	Ser	Ala	Glu	Lys	Leu	Arg	Lys	Met	Glu	Glu	Lys	Cys	G] u	Ser	Ala
		515					520					525			
Ala	His	Glu	Ala	Asp	Leu	Lys	Arg	Gln	Lys	Val	Ile	Glu	Leu	Thr	Gly
	530					535					540				
Thr	Ala	Arg	Gln	Val	Lys	He	Glu	Met	Asp	Gln	Tyr	Lys	Glu	G1 u	Leu
545					550					555					560
Ser	Lys	Met	Glu	Lys	Glu	He	Met	His	Leu	Lys	Arg	Asp	Gly	Glu	Asn
				565					570					575	
Lys	Ala	Met	His	Phe	Ser	Gln	Leu	Asp	Met	lle	Leu	Asp	Gln	Thr	Lys
			580					585					590		
Thr	Glu	Leu	Glu	Lys	Lys	Thr	Asn	Ala	Val	Lys	Glu	Leu	Glu	Lys	Leu
		595					600					605			
Gln	His	Ser	Thr	Glu	Thr	Glu	Leu	Thr	Glu	Ala	Leu	Gln	Lys	Arg	Glu
	610					615					620				
Val	Leu	Glu	Thr	Glu	Leu	Gln	Asn	Ala	His		Glu	Leu	Lys	Ser	Thr
625					630					635					640
Leu	Arg	Gln	Leu		Glu	Leu	Arg	Asp		Leu	Gln	Lys	Ala	Gln	Leu
				645					650					655	
Ser	Leu	Glu		Lys	Tyr	Thr	Thr		Lys	Asp	Leu	Thr		Glu	Leu
			660					665					670		
Asser	c1	Cvc	100	Mat	Che	110	C1	Acr	C1	Lvc	C1r	Clu	Low	Lan	$C1\cdots$

		675					680					685			
Met	Asp	Gln	Ala	Leu	Lys	Glu	Arg	Asn	Trp	Glu	Leu	Lys	Gln	Arg	Ala
	690					695					700				
Ala	Gln	Val	Thr	His	Leu	Asp	Met	Thr	He	Arg	Glu	His	Arg	Gly	Glu
705					710					715					720
Met	Glu	Gln	Lys	He	He	Lys	Leu	Glu	Gly	Thr	Leu	Glu	Lys	Ser	Glu
				725					730					735	
Leu	Glu	Leu	Lys	Glu	Cys	Asn	Lys	Gln	11e	Glu	Ser	Leu	Asn	Asp	Lys
			740					745					750		
Leu	Gln	Asn	Ala	Lys	Glu	Gln	Leu	Arg	Glu	Lys	Glu	Phe	He	Met	Leu
		755					760					765			
Gln	Asn	Glu	Gln	Glu	He	Ser	Gln	Leu	Lys	Lys	Glu	11e	Glu	Arg	Thr
	770					775					780				
G1n	Gln	Arg	Met	Lys	Glu	Met	Glu	Ser	Val	Met	Lys	Glu	Gln	Glu	Gln
785					790					795					800
Tyr	He	Ala	Thr	Gln	Cys	Lys	Glu	Ala	lle	Asp	Leu	Gly	Gln	Lys	Leu
				805					810					815	
Arg	Leu	Thr	Arg	Glu	Gln	Val	Gln	Asn	Ser	His	Thr	Glu	Leu	Ala	Glu
			820					825					830		
Ala	Arg	His	Gln	Gln	Val	Gln	Ala	Gln	Arg	Glu	lle	Glu	Arg	Leu	Ser
		835					840					845			
Ser	Glu	Leu	Glu	Asp	Met	Lys	Gln	Leu	Ser	Lys	Glu	Lys	Asp	Ala	llis
	850					855					860				
Gly	Asn	His	Leu	Ala	Glu	Glu	Leu	Gly	Ala	Ser	Lys	Va1	Arg	Glu	Ala
865					870					875					880
His	Leu	Glu	Ala	Arg	Met	Gln	Λla	Glu	lle	Lys	Lys	Leu	Ser	Ala	G] u
				885					890					895	
Val	Glu	Ser		Lys	Glu	Ala	Tyr		Met	Glu	Met	He		His	G1n
			900					905					910		
Glu	Asn		Ala	Lys	Trp	Lys		Ser	Ala	Asp	Ser		Lys	Ser	Ser
		915					920	0.1			_	925			0.1
Val		GIn	Leu	Asn	GIu		Leu	Glu	Lys	Ala		Leu	Glu	Leu	Glu
0.7	930	٥.		m)		935				<i>a</i> :	940	,	0.1		
	Ala	GIn	Asp	Thr		Ser	Asn	Leu	His		GIn	Val	GIn	Asp	
945	C3	V. 1	11	C I	950	A 7	4	C I	д 1	955		TI	1	Cly	960
11 (**)	1 - 1 1 2	MO.	110	1.111	nic	α Γ	nen	1 - 1 1 1	0.10	1 011	1 011	1 10 10	1 1/6	1 . 1 17	1.111

Asn Val <210> 3917 <211> 874 <212> PRT <213> Homo sapiens <400> 3917 Met Ser Asp Gly Lys Val Gly Glu Ser Ser Lys Lys Ser Glu 11e Lys Glu lle Glu Tyr Thr Lys Leu Lys Lys Ser Lys lle Glu Asp Ala Phe Ser Lys Glu Gly Lys Ser Asp Val Leu Leu Lys Leu Val Leu Glu Gln Gly Asp Ser Ser Glu IIe Leu Ser Lys Lys Asp Leu Pro Leu Asp Ser Glu Asn Val Gln Lys Asp Leu Val Gly Leu Ala Ile Glu Asn Leu His Lys Ser Glu Glu Met Leu Lys Glu Arg Gln Ser Asp Gln Asp Met Asn His Ser Pro Asn Ile Gln Ser Gly Lys Asp Ile His Glu Gln Lys Asn Thr Lys Glu Lys Asp Leu Ser Trp Ser Glu His Leu Phe Ala Pro Lys Glu lle Pro Tyr Ser Glu Asp Phe Glu Val Ser Ser Phe Lys Lys Glu lle Ser Ala Glu Leu Tyr Lys Asp Asp Phe Glu Val Ser Ser Leu Leu

Ser Leu Arg Lys Asp Ser Gln Ser Cys Arg Asp Lys Pro Gln Pro Met

Arg Ser Ser Thr Ser Gly Ala Thr Ser Phe Gly Ser Asn Glu Glu Ile

Ser	G] u	Cys	Leu	Ser	Glu	Lys	Ser	Leu	Ser	He	His	Ser	Asn	Val	His
		195					200					205			
Ser	Asp	Arg	Leu	Leu	Glu	Leu	Lys	Ser	Pro	Thr	Glu	Leu	Met	Lys	Ser
	210					215					220				
Glu	Glu	Arg	Ser	Asp	Val	Glu	His	Glu	Gln	Gln	Val	Thr	Glu	Ser	Pro
225					230					235					240
Ser	Leu	Ala	Ser	Val	Pro	Thr	Ala	Asp	Glu	Leu	Phe	Лѕр	Phe	His	He
				245					250					255	
Gly	Asp	Arg	Val	Leu	lle	Gly	Asn	Val	Gln	Pro	Gly	lle	Leu	Arg	Phe
			260					265					270		
Lys	Gly	Glu	Thr	Ser	Phe	Ala	Lys	Gly	Phe	Trp	Ala	Gly	Val	Glu	Leu
		275					280					285			
Asp	Lys	Pro	Glu	Gly	Asn	Asn	Asn	Gly	Thr	Tyr	Asp	Gly	He	Ala	Tyr
	290					295					300				
Phe	Glu	Cys	Lys	Glu	Lys	His	Gly	lle	Phe	Ala	Pro	Pro	Gln	Lys	lle
305					310					315					320
Ser	His	lle	Pro	Glu	Asn	Phe	Asp	Asp	Tyr	Val	Asp	He	Asn	Glu	Asp
				325					330					335	
Glu	Asp	Cys	Tyr	Ser	Asp	Glu	Arg	Tyr	Gln	Cys	Tyr	Asn	Gln	Glu	Gln
			340					345					350		
Àsn	Asp	Thr	Glu	Gly	Pro	Lys	Asp	Arg	Glu	Lys	Asp	Val	Ser	Glu	Tyr
		355					360					365			
Phe	Tyr	G1u	Lys	Ser	Leu	Pro	Ser	Val	Asn	Asp	He	Glu	Ala	Ser	Val
	370					375					380				
Asn	Arg	Ser	Arg	Ser	Leu	Lys	He	Glu	Thr	Asp	Asn	Va1	Gln	Asp	He
385					390					395					400
Ser	Gly	Val	Leu	Glu	Ala	His	Val	His	Gln	Gln	Ser	Ser	Val	Asp	Ser
				405					410					415	
GIn	He	Ser	Ser	Lys	Glu	Asn	Lys	Asp	Leu	He	Ser	Asp	Ala	Thr	Glu
			420					425					430		
Lys	Val	Ser	He	Ala	Ala	Glu	Asp	Asp	Thr	Leu	Asp	Asn	Thr	Phe	Ser
		435					440					445			
Glu	Glu	Leu	Glu	Lys	Gln	Gln	Gln	Phe	Thr	Glu	Glu	Glu	Asp	Asn	Leu
	450					455					460				
Tyr	Ala	Glu	Ala	Ser	Glu	Lys	Leu	Cys	Thr		Leu	Leu	Asp	Leu	Leu
465					470					475					480

Thr	Arg	Glu	Lys		Gln	Leu	Glu	Ala		Leu	Lys	Ser	Ser		Asn
				485					490				_	495	
Glu	Glu	Lys		Ser	Lys	GIn	GIn		Glu	Lys	He	Ser	Leu	Leu	Thr
			500					505					510		
Asp	Ser		Leu	Lys	Val	Phe		Lys	Asp	Thr	Val		Gln	Leu	Gln
		515					520					525			
Gln		Lys	Lys	Thr	Arg	Asp	Glu	Lys	He	G1n	Leu	Ser	Asn	Gln	Glu
	530					535					540				
Leu	Leu	Gly	Asp	Asp	Gln	Lys	Lys	Val	Thr		Gln	Asp	Leu	Ser	Gln
545					550					555					560
Asn	Val	Glu	Glu	Gln	Ser	Pro	Ser	He	Ser	G1 y	Cys	Phe	Leu	Ser	Ser
				565					570					575	
Glu	Leu	Glu	Asp	Glu	Lys	Glu	Glu	lle	Ser	Ser	Pro	Asp	Met	Cys	Pro
			580					585					590		
Arg	Pro	Glu	Ser	Pro	Val	Phe	Gly	Ala	Ser	Gly	Gln	Glu	Glu	Leu	Ala
		595					600		•			605			
Lys	Arg	Leu	Ala	Glu	Leu	Glu	Leu	Ser	Arg	Glu	Phe	Leu	Ser	Ala	Leu
	610				•	615					620				
Gly	Asp	Asp	Gln	Asp	Trp	Phe	Asp	Glu	Asp	Phe	Gly	Leu	Ser	Ser	Ser
625					630					635					640
His	Lys	Пе	Gln	Lys	Asn	Lys	Ala	Glu	Glu	Thr	He	Val	Pro	Leu	Met
				645					650					655	
Ala	Glu	Pro	Lys	Arg	Val	Thr	Gln	Gln	Pro	Cys	Glu	Thr	Leu	Leu	Ala
			660					665					670		
Va]	Pro	His	Thr	Ala	Glu	Glu	Val	Glu	He	Leu	Val	His	Asn	Ala	Ala
		675					680					685			
Glu	Glu	Leu	Trp	Lys	Trp	Lys	Glu	Leu	Gly	His	Asp	Leu	His	Ser	He
	690					695					700				
Ser	He	Pro	Thr	Lys	Leu	Leu	Gly	Cys	Ala	Ser	Lys	G1y	Leu	Asp	Пе
705					710					715					720
Glu	Ser	Thr	Ser	Lys	Arg	Val	Tyr	Lys	Gln	Ala	Val	Phe	Asp	Leu	Thr
				725					730					735	
Lys	Glu	Пе	Phe	Glu	Glu	He	Phe	Ala	Glu	Asp	Pro	Asn	Leu	Asn	Gln
			740					745					750		
Pro	Val	Trp	Met	Lys	Pro	Cys	Arg	He	Asn	Ser	Ser	Tyr	Phe	Arg	Arg
		755					760					765			

Val Lys Asn Pro Asn Asn Leu Asp Glu 11e Lys Ser Phe 11e Ala Ser 775 Glu Val Leu Lys Leu Phe Ser Leu Lys Lys Glu Pro Asn His Lys Thr 785 790 795 800 Asp Trp Gln Lys Met Met Lys Phe Gly Arg Lys Lys Arg Asp Arg Val 805 810 Asp His 11e Leu Val Gln Glu Leu His Glu Glu Glu Ala Gln Trp Val 825 Asn Tyr Asp Glu Asp Glu Leu Cys Val Lys Met Gln Leu Ala Asp Gly 835 840 845 lle Phe Glu Thr Leu Ile Lys Asp Thr Ile Asp Val Leu Asn Gln Ile 855 860 Ser Glu Lys Gln Gly Arg Met Leu Leu Val 865 870

<210> 3918

<211> 169

<212> PRT

<213> Homo sapiens

<400> 3918

Met Leu His Pro Phe Thr Gly 11e Pro Ser Trp Phe Thr Met Ser Ser 1 5 10 15

Tyr He His His Met Ser Gly Leu Ser Gly Leu Pro Leu Pro Pro Trp
20 25 30

Arg Gly Ser Arg Gln His Asn Asn Ala His Phe Arg Val Gly Leu Leu 35 40 45

Gly Pro Leu Leu Ala Pro Ala Pro Ile Gly Ser Ile Pro Trp Ser Gln 50 55 60

Thr Leu Arg Trp Arg Ser Cys Ala Gly Val Tyr Trp Arg Val Leu Leu 65 70 75 80

Gly Thr Thr Pro Val Arg Gly Glu Gly Arg Arg Val Gly Gln Gln Glu S5 90 95

Lys Leu Gly Cys Glu Ala Phe Ser Ser Leu Ser Gln Phe His Arg Gln 100 105 110

 Pro
 Trp
 Arg
 Trp
 Ala
 Gly
 Pro
 Ser
 Glu
 Leu
 Ser
 Pro
 Leu
 Arg
 Pro
 Arg

 Asp
 115
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<210> 3919

<211> 221

<212> PRT

<213> Homo sapiens

<400> 3919

Met Ser Glu Leu Ile Ser Asn Gly Ile Gln Ile Tyr Gln Leu Pro Thr

1 5 10 15

Asp Glu Glu Thr Ala Ala Gln Ala Asn Ser Ser Val Ser Gly Leu Leu 20 25 30

Pro Phe Ala Val Val Gly Ser Thr Asp Glu Val Lys Val Gly Lys Arg

35 40 45

Met Val Arg Gly Arg His Tyr Pro Trp Gly Val Leu Gln Val Glu Asn 50 55 60

Glu Asn His Cys Asp Phe Val Lys Leu Arg Asp Met Leu Leu Cys Thr 65 70 75 80

Asn Met Glu Asn Leu Lys Glu Lys Thr His Thr Gln His Tyr Glu Cys 85 90 95

Tyr Arg Tyr Gln Lys Leu Gln Lys Met Gly Phe Thr Asp Val Gly Pro 100 105 110

Asn Asn Gln Pro Val Ser Phe Gln Glu IIe Phe Glu Ala Lys Arg Gln
115 120 125

Glu Phe Tyr Asp Gl
n Cys Gl
n Arg Glu Glu Glu Glu Leu Lys Gl
n Arg 130 $$135\ \ \, 140\ \ \,$

Phe Met Gln Arg Val Lys Glu Lys Glu Ala Thr Phe Lys Glu Ala Glu

150 160 145 155 Lys Glu Leu Gln Asp Lys Phe Glu His Leu Lys Met Ile Gln Gln Glu 170 165 Glu 11e Arg Lys Leu Glu Glu Glu Lys Lys Gln Leu Glu Gly Glu 11e 190 180 185 lle Asp Phe Tyr Lys Met Lys Ala Ala Ser Glu Ala Leu Gln Thr Gln 200 205 Leu Ser Thr Asp Thr Lys Lys Asp Lys His Arg Lys Lys 215 220

<210> 3920

<211> 116

<212> PRT

<213> Homo sapiens

<400> 3920

Met Leu Phe IIe Glu Leu Val Leu Tyr Leu Pro Ser Val Ser Lys Phe 1 5 10 15

11e Lys 11e Arg Asp Phe Leu Cys Phe Pro Arg Glu Asn Ser Thr Phe 20 25 30

Leu Leu Thr Val Arg Pro Val His Trp Cys Leu Ala Pro Val Gl
n Ala 35 40 45

Asn Gly Ser Ala Met Ser Ser Ala Pro 11e Ser Trp Arg Asp Gly Gln 50 55 60

Arg His Phe Gln Lys Cys Ser Ser Leu Gln Pro Phe Thr Trp Asn Lys
65 70 75 80

Cys His Lys Asp Leu Trp Arg Cys Phe Val Pro Gly Phe Ser Thr Val 85 90 95

Ser Ala Phe Gly Asp Glu Glu Glu Phe Leu Pro Tle Leu Val Val Leu 100 105 110

Ala Ser 11e Gly

. 115

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<212> PRT
<213> Homo sapiens
<400> 3921
Met Lys Ser Gly Met Ile Asn Leu Thr Ser Gly Leu Ala Thr Gly Val
                                     10
Thr Asn Lys Lys Glu Val Asp Glu Asp Lys Val Gly Ile Cys Thr Gln
             20
                                 25
Lys His Ser Glu Asn Val Ser Lys Val Thr Ser Thr Thr Thr Val Lys
                             40
                                                 45
Ser Lys Asp Thr Gln Glu Pro Asn Leu Ser Glu Thr Phe Asn Asn Asn
                         55
                                             60
Glu Ile Glu Lys Lys Arg Asn Leu Ile Pro Thr Asp Lys Lys Gly Lys
 65
                     70
                                         75
Asp Asp Glu lle Asn Thr His Phe Ser Leu lle lle Asp Asp Thr Glu
                                     90
Tyr Glu Lys Glu Val Leu Gly Ser Asp Ser Glu 11e Gly Tyr Lys Lys
            100
                                105
                                                    110
Lys Ile Asp Asn Ala Arg Glu Ser Ser Phe Lys Lys Asp Asp Lys Leu
        115
                            120
                                                 125
Phe Gln Leu Ser Ser Leu Lys Ser Lys Arg Asn Leu Gly Thr Thr
                        135
                                            140
Asp Thr Leu Glu lle Arg Thr Arg Thr Ser Ser Asn Glu Gly Arg Arg
145
                    150
                                        155
                                                             160
Asp Ser Pro Thr Gln Thr Cys Arg Asp Glu Glu His His Ser Asp Tyr
                                    170
Glu His Val Gln Asn Val Ile Glu Asn Ile Phe Glu Asp Val Leu Glu
            180
                                185
                                                     190
Leu Ser Ser Ser Pro Glu Pro Ala Tyr Tyr Ser Lys Leu Ser Tyr Asp
                            200
                                                 205
Gln Ser Pro Pro Gly Asp Asn Val Leu Asn Val 11e Gln Glu 11e Ser
                        215
                                            220
Arg Asp Ser Ala Gln Ser Val Thr Thr Lys Lys Val Ser Ser Ser Thr
```

<211> 978

Asn	Lys	Asn	He	Ser 245	Ala	Lys	Glu	Lys	G1u 250	Glu	Glu	Glu	Arg	Glu 255	Lys
Glu	Lvs	Val	Arø		Glu	He	lvs	Ser		Pro	Ser	Lve	Pro		Aen
010	15,70		260	0.14	oru	1,10	13,0	265	014	110	501	1.,0	270	пэр	пэр
Pro	Gln	Asn		Gln	Glu	Ser	Lvs		Glv	lle	Phe	Pro		Lvs	Phe
		275		0	0.0		280		0.1)		1110	285		15,5	THE
Leu	Glu		Val	11e	Thr	Glu		Val	Lvs	Gln	Leu		Phe	Ser	Ser
	290	•				295					300				
He	Pro	Glu	Thr	Gln	He	Gln	Asp	Arg	Cys	Gln	Asn	Val	Ser	Asp	Lys
305					310					315				•	320
Gln	Asn	Gln	Ala	Lys	Leu	Tyr	Asp	Thr	Ala	Met	Lys	Leu	He	Asn	Ser
				325					330					335	
Leu	Leu	Lys	G] u	Phe	Ser	Asp	Ala	Gln	He	Lys	Val	Phe	Arg	Pro	Asp
			340					345					350		
Lys	Gly	Asn	Gln	Phe	Pro	Gly	Gly	Lys	Val	Ser	Ser	Val	Pro	Lys	Val
		355					360					365			
Pro	Pro	Arg	Tyr	Lys	Glu	Pro	Thr	Thr	Asp	Glu	Ala	Pro	Ser	Ser	lle
	370					375					380				
Lys	Ile	Lys	Ser	Ala	Asp	Lys	Met	Pro	Pro	Met	His	Lys	Met	Met	Arg
385					390					395					400
Lys	Pro	Ser	Ser	Asp	Lys	He	Pro	Ser	lle	Asp	Lys	Thr	Leu	Val	Asn
				405					410					415	
Lys	Val	Val		Ser	Ser	Val	Cys	Asn	He	Leu	Asn	Asp	Tyr	Gly	Ser
			420					425					430		
G1n	Asp		lle	Trp	Lys	Asn	He	Asn	Ser	Asn	G1 y	Glu	Asn	Leu	Ala
		435			_		440					445			
Arg		Leu	Thr	Ser	Ala	Val	lle	Asn	Glu	He		Gln	His	Gln	Val
	450		DI	C		455	., ,	0			460	•			
	Leu	He	Phe	Cys		Glu	Val	Ser	Val		Ala	Cys	Leu	Pro	
465	Can	Lua	Λ	V = 1	470	1	1	V - 1	C1	475		. 1	C1	TI	480
GIU	ser	Lys			vai	Lys	Lys			Lys	Leu	Ala			Ala
Sor	lve	Glu		485	The	Ser	Sar		490	The	110	110		495 Dra	u; a
261	rio	ULU	500	OIII	1111	<i>5</i> 61	961	505	1 y 1	ш	116	116	510	1.10	1115
Lvs	Phe	Len		Asn	Val	lle	Ser		Leu	Phe	Ser	lve		Pho	Sar
- 5		515					520				JU1	525	110		

Thr	11e 530	Ser	Ser	Thr	Lys	Thr 535	Lys	Glu	Pro	Glu	Asp 540	Asn	Leu	Ser	Thr
Glu		Asn	Phe	Leu	Gln		Lys	Leu	Val	Ser	Ala	Val	Ala	Thr	Glu
545					550					555					560
He	Ser	G1n	Asp	Lys	Tyr	Met	Thr	lle	Gln	Tyr	Val	Glu	Thr	Leu	Gln
				565					570					575	
Ser	Asp	Asp	Asp	Glu	He	11e	G1n	Leu	Val	Val	Gln	Ser	Val	Tyr	Asn
			580					585					590		
Asn	Leu	Leu	Pro	GIn	Phe	Gly	Ser	Gln	Glu	lle	lle	Gln	Asn	Cys	Val
		595					600					605			
Thr	Ser	Gly	Cys	Lys	He	Leu	Ser	Glu	Asn	He	Val	Asp	Leu	Val	Leu
	610					615					620				
	G1u	Val	Ala	Ser		G1n	Leu	G1n	Ser		Phe	Cys	Gly	Glu	
625					630					635					640
Thr	Pro	His	GIn		Val	Glu	Val	Glu		He	Val	Glu	Lys		Leu
1	Α	V = 1	DL -	645	ть	ть	Λ	V = 1	650	C1	D	1	D	655	112 -
Lys	Asp	vai	660	GIN	ınr	inr	Asp	665	rro	GIN	Pro	Lys	670	2er	HIS
Δla	Asn	Lve		Sor	Tyr	Aen	مالا		Glu	Glu	lle	Ala		lve	Phe
Mid	пор	675	Leu	001	1) 1	11311	680	110	ora	ora	110	685	101	12,3	1110
Leu	Ser		Leu	Leu	Ser	lle		Pro	Lvs	Val	His		Glu	Arg	Thr
	690	·				695			-		700	-			
Lys	Ser	Leu	Glu	Thr	Asp	Met	Gln	Lys	He	Thr	Ser	Lys	Val	Leu	Asn
705					710					715					720
Ser	Val	Gln	Glu	Phe	He	Ser	Lys	Ser	Lys	Пe	Lys	Leu	Val	Pro	Pro
				725					730					735	
Thr	Lys	Glu	Ser	Pro	Thr	Val	Pro	Val	Ala	Asp	Asn	Ala	Thr	He	Glu
			740					745					750		
Asn	lle		Asn	Ser	He	Tyr		Ser	Val	Leu	Lys		Ser	G1 y	Ser
		755					760				_	765		_	
Tyr		Ser	Val	Phe	Lys	-	Leú	Met	Gly	Lys	Ser	Asn	Val	Leu	Ser
	770	7.3	61.	DI.	1	775	V 1	,	A1.	11.	780	Δ	C	C1	DL.
	ınr	116	61 y	rne	Leu 790	мет	val	ASN	Ala	795	Ser	asn	261.	oru	800
785 GIn	Pro	Gla	Val	Glu		Glo	Val	Sor	Acn		Glu	Lau	Val	Leu	
HIO	110	0111	, 61	805	U.I.U	GIU	191	761	810	OCI	O.i u	Leu	, (1)	815	osu
				500										010	

Ala Val Lys Ile Met Glu Lys Val Ile Lys Ile Ile Asp Glu Leu Lys 825 Ser Lys Glu Lys Ser Ser Ser Arg Lys Gly Leu Thr Leu Asp Ala Lys 835 840 845 Leu Leu Glu Glu Val Leu Ala Leu Phe Leu Ala Lys Leu Ile Arg Leu 850 855 860 Pro Ser Ser Ser Lys Asp Glu Lys Asn Leu Ser Lys Thr Glu Leu 870 875 Asn Lys Ile Ala Ser Gln Leu Ser Lys Leu Val Thr Ala Glu Ile Ser 885 890 895 Arg Ser Ser Ile Ser Leu Ile Ala Ser Asp Pro Glu Glu His Cys Leu 900 905 Asn Pro Glu Asn Thr Glu Arg lle Tyr Gln Val Val Asp Ser Val Tyr 920 925 Ser Asn lle Leu Gln Gln Ser Gly Thr Asn Lys Glu Phe Tyr Tyr Asp 930 935 lle Lys Asp Thr Asn Thr Ala Phe Pro Lys Lys Val Ala Ser Leu Ile 950 955 lle Asp Gly Val Ser Ser Phe Pro Leu Asp Thr lle Asn Ser Thr Phe 970 965 975 Lys Cys

<210> 3922

<211> 140

<212> PRT

<213> Homo sapiens

<400> 3922

Met Leu Ser Ala Val Pro Leu Gly Pro Leu Leu Phe Leu Tyr Thr Leu

1 5 10 15

Ser Leu Cys Leu Ile Ser Phe Leu Ser Leu Ser Ser His Pro Thr Arg
20 25 30

Asn Thr His Ser Cys Gly Gly Glu Ser His Pro Phe Thr Phe Leu Phe
35 40 45

Phe Ser Phe Phe Phe Leu Pro Ser Phe Phe Phe Leu Phe Phe Leu Phe 55 Phe Phe Phe Leu Thr Glu Ser Cys Ser Val Thr Gln Ala Gly Val Gln 70 75 Trp Arg Tyr Leu Gly Ser Leu Gln Pro Pro Pro Pro Arg Phe Lys Gln 85 90 Ser Ser Cys Leu Ser Leu Pro Ser 11e Trp Asn Tyr Arg Arg Val Pro 105 Pro Arg Pro Ala Ser Phe Cys Ile Ile Ser Arg Asp Gly Val Ser Pro 115 120 125 Cys Trp Pro Gly Trp Ser Arg Thr Pro Asp Leu Arg 130 135 140

<210> 3923

<211> 126

<212> PRT

<213> Homo sapiens

<400> 3923

Met Tyr Pro Glu Pro Ser Leu Phe Leu Tyr Cys Pro Ser Lys Met Ser

1 5 10 15

Val Gin Gly Pro Gly Val Glu Glu Pro Val Val Cys Trp Gly Arg lle
20 25 30

Leu Gly Trp His Ser Leu Arg His Pro Thr Ser Thr Ser Pro Met Leu 35 40 45

Phe His Met Val Pro Gly Ser Ser Thr Val Thr Ser Thr Leu Glu Met 50 55 60

Ala Thr Val Thr Cys Pro Ser His Arg Glu Thr Lys His Ser Pro Cys
65 70 75 80

Leu Pro Asp Ser Gly Val Cys Leu Leu Ser Phe Tyr His His Leu Pro
85 90 95

Pro Val Glu Gly Phe Leu Arg Asn Asp Leu Pro Gly Glu Asn Pro Phe 100 105 110

lle Pro Arg Pro Pro Ser His Pro lle lle Gln Cys lle Leu

115 120 125

<210> 3924 <211> 926 <212> PRT <213> Homo sapiens <400> 3924 Met His Phe Arg Asp Thr Ser Glu Arg Gln Ser Asp Ala Val Asn Glu 10 Ser Ser Leu Asp Ser Val His Leu Gln Met Ile Lys Gly Met Leu Tyr 20 25 Gln Gln Arg Gln Asp Phe Ser Ser Gln Asp Ser Val Ser Arg Lys Lys 35 40 45 Val Leu Ser Leu Asn Leu Lys Gln Thr Ser Lys Thr Glu Glu Ile Lys 55 Asn Val Leu Gly Gly Ser Thr Cys Tyr Asn Tyr Ser Val Lys Asp Leu 70 75 Gln Glu Ile Ser Gly Ser Glu Leu Cys Phe Pro Ser Gly Gln Lys Ile 85 90 Lys Ser Ala Tyr Leu Pro Gln Arg Gln Ile His Ile Pro Ala Val Phe 105Gln Ser Pro Ala His Tyr Lys Gln Thr Phe Thr Ser Cys Leu Ile Glu 120 125 115 His Leu Asn Ile Leu Leu Phe Gly Leu Ala Gln Asn Leu Gln Lys Ala 135 Leu Ser Lys Val Asp 11e Ser Phe Tyr Thr Ser Leu Lys Gly Glu Lys 150 155 Leu Lys Asn Ala Glu Asn Asn Val Pro Ser Cys His His Ser Gln Pro 165 170

Ala Lys Leu Val Met Val Lys Lys Glu Gly Pro Asn Lys Gly Arg Leu

Phe Tyr Thr Cys Asp Gly Pro Lys Ala Asp Arg Cys Lys Phe Phe Lys

Trp Leu Glu Asp Val Thr Pro Gly Tyr Ser Thr Gln Glu Gly Ala Arg

200

185

205

180

	210					215					220				
Pro	Gly	Met	Val	Leu	Ser	Asp	He	Lys	Ser	lle	Gly	Leu	Tyr	Leu	Arg
225					230					235					240
Ser	Gln	Lys	Пе	Pro	Leu	Tyr	Glu	Glu	Cys	Gln	Leu	Leu	Val	Arg	Lys
				245					250					255	
Gly	Phe	Asp	Phe	Gln	Arg	Lys	Gln	Tyr	Gly	Lys	Leu	Lys	Lys	Phe	Thr
			260					265					270		
Thr	Val	Asn	Pro	Glu	Phe	Tyr	Asn	Glu	Pro	Lys	Thr	Lys	Leu	Tyr	Leu
		275					280					285			
Lys	Leu	Ser	Arg	Lys	Glu	Arg	Ser	Ser	Ala	Tyr	Ser	Lys	Asn	Asp	Leu
	290					295					300				
Trp	Val	Val	Ser	Lys	Thr	Leu	Asp	Phe	Glu	Leu	Asp	Thr	Phe	He	Ala
305					310					315					320
Cys	Ser	Ala	Phe	Phe	Gly	Pro	Ser	Ser	11e	Asn	Glu	He	Glu	He	Leu
				325					330					335	
Pro	Leu	Lys	Gly	Tyr	Phe	Pro	Ser	Asn	Trp	Pro	Thr	Asn	Met	Val	Val
			340					345					350		
His	Ala		Leu	Val	Cys	Asn		Ser	Thr	Glu	Leu		Thr	Leu	Lys
		355					360					365			
Asn		Gln	Asp	Tyr	Phe	Asn	Pro	Ala	Thr	Leu		Leu	Thr	Gln	Tyr
	370					375					380	_			~
	Leu	Thr	Thr	Ser		Pro	Thr	He	Val		Asn	Lys	Arg	Val	
385		,	101	7.1	390	ь	4.1	121	TI	395	V. 1	C	TI.		400
Lys	Arg	Lys	Phe		Pro	Pro	Ala	Phe		Asn	vai	Ser	Ihr	-	Phe
C1	Lau	Lau	Can	405	C1	A 1 a	Tha	1	410		A 1 -	Can	C1	415	11.
61u	Leu	Leu		reu	GIY	Ala	1111		Lys	Leu	ATA	ser		Leu	116
Gla	Val	llic	420	Lou	Acn	Lys	Acn	425	Ala	Thr	Λlα	Lou	430	Cln	110
0.111	vai	435	Lys	Leu	ASII	Lys	440	0111	лта	1111	MIA	445	116	0111	116
Ala	G1n		Mot	Ala	Sor	His		Ser	116	Glu	Glu		Lve	Glu	Lou
MIG	450	.nc t	.iiC C	nia	561	455	014	501	110	O, u	460	, (11	n) o	010	151, 11
Gln		His	Thr	Phe	Pro	He	Thr	lle	He	His		Val	Phe	Glv	Ala
465					470					475	,			 ,	480
	Lvs	Ser	Tvr	Leu		Ala	Val	Val	He		Phe	Phe	Val	Gln	
•	•		•	485					490					495	
Phe	Glu	Lvs	Ser		Ala	Pro	Thr	He		Asn	Ala	Arg	Pro		Lvs

			500					505					510		
l.eu	Leu	He	Ser	Ser	Ser	Thr	Asn	Val	Ala	Val	Asp	Arg	Val	Leu	Leu
		515					520					525			
Gly	Leu	Leu	Ser	Leu	Gly	Phe	Glu	Asn	Phe	He	Arg	Val	Gly	Ser	Val
	530					535					540				
Arg	Lys	He	Ala	Lys	Pro	lle	Leu	Pro	Tyr	Ser	Leu	His	Ala	Gly	Ser
545					550					555	7				560
Glu	Asn	Glu	Ser	Glu	GIn	Leu	Lys	Glu	Leu	His	Ala	Leu	Met	Lys	Glu
				565					570					575	
Asp	Leu	Thr	Pro	Thr	Glu	Arg	Val	Tyr	Val	Arg	Lys	Ser	He	Glu	G1n
			580					585					590		
His	Lys	Leu	Gly	Thr	Asn	Arg	Thr	Leu	Leu	Lys	Gln	Val	Arg	Val	Val
		595					600					605			
Gly	Va]	Thr	Cys	Ala	Ala	Cys	Pro	Phe	Pro	Cys	Met	Asn	Asp	Leu	Lys
	610					615					620				
Phe	Pro	Va]	Val	Val	Leu	Asp	Glu	Cys	Ser	Gln	He	Thr	Glu	Pro	Λla
625					630					635					640
Ser	Leu	Leu	Pro	Ile	Ala	Arg	Phe	Glu	Cys	Glu	Lys	Leu	He	Leu	Val
				645					650					655	
Gly	Asp	Pro	Lys	Gln	Leu	Pro	Pro	Thr	He	Gln	Gly	Ser	Asp	Ala	Ala
	\		660					665					670		
llis	Glu	Asn	Gly	Leu	Glu	Gln	Thr	Leu	Phe	Asp	Arg	Leu	Cys	Leu	Met
		675					680					685			
G1y	His	Lys	Pro	lle	Leu	Leu	Arg	Thr	Gln	Tyr	Arg	Cys	His	Pro	Ala
	690					695					700				
lle	Ser	Ala	He	Ala	Asn	Asp	Leu	Phe	Tyr	Lys	Gly	Ala	Leu	Met	Asn
705					710					715					720
Gly	Val	Thr	Glu	He	Glu	Arg	Ser	Pro	Leu	Leu	Glu	Trp	Leu	Pro	Thr
				725					730					735	
Leu	Cys	Phe	Tyr	Asn	Val	Lys	G1 y	Leu	G1u	Gln	11e	Glu	Arg	Asp	Asn
			740					745					750		
Ser	Phe	His	Asn	Val	Ala	Glu	Ala	Thr	Phe	Thr	Leu	Lys	Leu	11e	Gln
		755					760					765			
Ser	Leu	Пе	Ala	Ser	Gly	He	Ala	Gly	Ser	Met	He	Gly	Val	He	Thr
	770					775					780				
Leu	Tyr	Lys	Ser	GIn	Met	Tyr	Lys	Leu	Cys	His	Leu	Leu	Ser	Ala	Val

Asp Phe His His Pro Asp Ile Lys Thr Val Gln Val Ser Thr Val Asp Ala Phe Gln Gly Ala Glu Lys Glu Ile Ile Ile Leu Ser Cys Val Arg Thr Arg Gln Val Gly Phe lle Asp Ser Glu Lys Arg Met Asn Val Ala Leu Thr Arg Gly Lys Arg His Leu Leu Ile Val Gly Asn Leu Ala Cys Leu Arg Lys Asn Gln Leu Trp Gly Arg Val 11e Gln His Cys Glu Gly Arg Glu Asp Gly Leu Gln His Ala Asn Gln Tyr Glu Pro Gln Leu Asn His Leu Leu Lys Asp Tyr Phe Glu Lys Gln Val Glu Glu Lys Gln Lys Lys Lys Ser Glu Lys Glu Lys Ser Lys Asp Lys Ser His Ser

<210> 3925

<211> 1058

<212> PRT

<213> Homo sapiens

<400> 3925

Met Ile Ile Cys Leu Leu Met Thr Leu Lys Leu Arg Tyr Leu Pro Thr Lys Val Leu Gln Leu Glu Ser Cys Leu Glu His Lys Ser Arg Ser Ser Pro Ile Ala Leu Ile Asp Glu Lys Ser Thr Asn Ala His Leu Ser Leu Pro Gln Lys Ser Pro Ser Leu Ala Lys Glu Val Pro Asp Leu Cys Phe Ser Asp Asp Tyr Phe Ser Asp Lys Gly Ala Ala Lys Glu Glu Lys Pro Lys Asn Asp Gln Glu Pro Val Asn Arg Ile Ile Gln Lys Lys Glu Asn

				85					90					95	
Asn	Asp	His	Phe	Glu	Leu	Asp	Cys	Thr	Gly	Pro	Ser	He	Lys	Ser	Pro
			100					105					110		
Ser	Ser	Ser	Пе	Hle	Lys	Lys	Ala	Ser	Phe	Glu	His	Gly	Lys	Lys	G1n
		115					120					125			
Glu	Asn	Asp	Leu	Asp	Leu	Leu	Ser	Asp	Phe	lle	Met	Leu	Arg	Asn	Lys
	130					135					140				
Tyr	Lys	Thr	Cys	Thr	Ser	Lys	Thr	Glu	Val	Thr	Asn	Ser	Asp	Glu	Lys
145					150					155					160
His	Asp	Lys	Glu	Ala	Cys	Ser	Leu	Thr	Leu	Gln	Glu	Glu	Ser	Pro	Ile
				165					170					175	
Val	His	He	Asn	Lys	Thr	Leu	Glu	Glu	He	Asn	Gln	Glu	Arg	Gly	Thr
			180					185					190		
Asp	Ser	Val	He	Glu	He	Gln	Ala	Ser	Asp	Ser	Gln	Cys	Gln	Ala	Phe
		195					200					205			
Cys	Leu	Leu	Glu	Ala	Ala	Ala	Ser	Pro	lle	Leu	Lys	Asn	Leu	Va]	Ser
	210					215					220				
Leu	Cys	Thr	Leu	Pro	Thr	Ala	Asn	Trp	Lys	Phe	Ala	Thr	Va]	lle	Phe
225					230					235					240
Asp	Gln	Thr	Arg	Phe	Leu	Leu	Lys	Glu	Gln	Glu	Lys	Val	Val	Ser	Asp
				245					250					255	
Ala	Val	Arg	Gln	Gly	Thr	Пe	Asp	Glu	Arg	Glu	Met	Thr	Phe	Lys	His
			260					265					270		
Ala	Ala		Leu	His	Leu	Leu		Thr	He	Arg	Asp		Leu	Leu	Thr
	_	275					280	_		_		285			
Cys		Leu	Asp	Thr	Ala		GIy	Tyr	Leu	Ser		Ala	Lys	Asp	He
ar.	290	0	7.1	•	6.1	295	m.	,	0.1		300	m		6.1	,
	Asn	Ser	He	Leu		Pro	lyr	Leu	Gly		11e	Irp	Arg	Gln	
305	7.1	V. 1	61	DI	310		C1		,	315	C1	TI	,	æ	320
61u	He	Va1	UIn		116	Arg	Gly	Lys		Pro	61u	Inr	Asn	Tyr	Lys
11.	C1	C1	1	325	C	C1	11.	1	330	Т	Mat	Cl.	C	335	C1
116	GIN	GJU		GIN	Cys	GIII	116		Set.	1.Tp	мет	GIII		Gln	GIII
C1.5	11.	Luc	340	Lan	11.	11-	11.	345	Mot	A ===	San	٨٥٥	350	C1	1
0.111	116	1.ys 355	val	rea	116	116		Arg	мес	usb	261	365	OTÀ	Glu	LyS
Hie	Pho		116	lve	l l e	l eu	360 Asn	lve	Ile	Glu	Glv		The	Leu	The
1115	1 11t.	1.5	1 1 1-"		1 1 1-1	1 1 1	0.511	1 V >	1 1 1	11111	1111	1.1.11	1 1 1 3	1.37714	1111

	370					375					380				
Val	Leu	His	Ser	Asn	Glu	Arg	Lys	Asp	Phe	Leu	Glu	Ser	Glu	Gly	Val
385					390					395					400
Leu	Arg	Gly	Thr	Ser	Ser	Cys	Val	Val	Val	His	Asn	Gln	Tyr	Пе	Gly
				405					410					415	
Ala	Asp	Phe	Pro	Trp	Ser	Asn	Phe	Ser	Phe	Val	Val	Glu	Tyr	Asn	Tyr
			420					425					430		
Val	Glu	Asp	Ser	Cys	Trp	Thr	Lys	His	Cys	Lys	Glu	Leu	Asn	He	Pro
		435					440					445			
Tyr	Met	Ala	Phe	Lys	Val	He	Leu	Pro	Asp	Thr	Val	Leu	Glu	Arg	Ser
	450					455					460				
Thr	Leu	Leu	Asp	Arg	Phe	Gly	G1y	Phe	Leu	Leu	Glu	He	Gln	11e	Pro
465					470					475					480
Tyr	Val	Phe	Phe	Ala	Ser	Glu	Gly	Leu	Leu	Asn	Thr	Pro	Asp	11e	Leu
				485					490					495	
Gln	Leu	Leu	Glu	Ser	Asn	Tyr	Asn	Пe	Ser	Leu	Val	Glu	Arg	Gly	Cys
	•		500					505					510		
Ser	Glu	Ser	Leu	Lys	Leu	Phe	Gly	Ser	Ser	Glu	Cys	Tyr	Val	Val	Val
		515					520					525			
Thr	Пе	Asp	Glu	His	Thr	Ala	lle	He	Leu	Gln	Asp	Leu	Glu	Glu	Leu
	530					535					540				
Asn	Cys	Glu	Lys	Ala	Ser	Asp	Asn	Пе	lle	Met	Arg	Leu	Met	Ala	Leu
545					550					555	•				560
Ser	Leu	Gln	Tyr	Arg	Tyr	Cys	Trp	He	He	Leu	Tyr	Thr	Lys	Glu	Thr
				565					570					575	
Leu	Asn	Ser	Glu	Tyr	Pro	Leu	Thr	Glu	Lys	Thr	Leu	His	His	Leu	Ala
			580					585					590		
Leu	He	Tyr	Ala	Ala	Leu	Val	Ser	Phe	Gly	Leu	Asn	Ser	Glu	Glu	Leu
		595					600					605			
Asp	Val	Lys	Leu	He	11e	Ala	Pro	Gly	Val	Glu	Ala	Thr	Ala	Leu	He
	610					615					620				
He	Arg	Gln	He	Ala	Asp	His	Ser	Leu	Met		Ser	Lys	Arg	Asp	Pro
625					630					635					640
His	Glu	Trp	Leu		Lys	Ser	Trp	Leu		Val	Ser	Pro	Ser		Glu
		_		645			_		650		_			655	
C. by	Mai	Tyr	Lou	Lau	Acr	Pho	Pro	Cvc	110	Acr	Pro	Len	Val	Ala	Gla

			660					665					670		
Leu	Met	Leu	Λsn	Lys	Gly	Pro	Ser	Leu	His	Trp	Ile	Leu	Leu	Ala	Thr
		675					680					685			
Leu	Cys	G1n	Leu	Gln	Glu	Leu	Leu	Pro	Glu	Val	Pro	Glu	Lys	Val	Leu
	690					695					700				
Lys	His	Phe	Cys	Ser	He	Thr	Ser	Leu	Phe	Lys	Пе	Gly	Ser	Ser	Ser
705					710					715					720
He	Thr	Lys	Ser	Pro	Gln	11e	Ser	Ser	Pro	Gln	Glu	Asn	Arg	Asn	G1n
				725					730					735	
He	Ser	Thr	Leu	Ser	Ser	Gln	Ser	Ser	Ala	Ser	Asp	Leu	Asp	Ser	Val
			740					745					750		
Пе	Gln	Glu	His	Asn	Glu	Tyr	Tyr	Gln	Tyr	Leu	Gly	Leu	Gly	Glu	Thr
		755					760					765			
Val	Gln	Glu	Asp	Lys	Thr	Thr	Thr	Leu	Asn	Asp	Asn	Ser	Ser	He	Met
	770					775					780				
Glu	Leu	Lys	Gly	lle	Ser	Ser	Phe	Leu	Pro	Pro	Va]	Thr	Ser	Tyr	Asn
785					790					795					800
G1n	Thr	Ser	Tyr	Trp	Lys	Asp	Ser	Ser	Cys	Lys	Ser	Asn	lle	Gly	Gln
				805					810					815	
Asn	Thr	Pro	Phe	Leu	He	Asn	lle	Glu	Ser	Arg	Arg	Pro	Ala	Tyr	Asn
			820					825					830		
Ser	Phe	Leu	Asn	His	Ser	Asp	Ser	Glu	Ser	Asp	Val	Phe	Ser	Leu	Gly
		835					840					845			
Leu	Thr	Gln	Met	Asn	Cys	Glu	Thr	He	Lys	Ser	Pro	Thr	Asp	Thr	Gln
	850					855				-1	860				
Lys	Arg	Val	Ser	Val	Val	Pro	Arg	Phe	lle	Asn	Ser	Gln	Lys	Arg	Arg
865					870					875					880
Thr	His	Glu	Ala		Gly	Phe	lle	Asn		Asp	Val	Ser	Asp		He
				885					890					895	_
Phe	Ser	Leu		61 y	Thr	G] n	Ser		Leu	His	Trp	Asn		Lys	Lys
		_	900					905					910		
Asn	He		G]u	G1n	Glu	Asn		Pro	Phe	Asn	Leu		Tyr	Gly	Ala
	0.1	915					920	ar.	6	0.1		925			F31
6In	Gln	Thir	Ala	Cys	Asn		Leu	Lyr	Ser	61n		ыу	Asn	Leu	Phe
	930					935					940				
Tri	Acp	C 1	C3		C		c	Δ.	C I	C		C I	1	TI	C

Glu Ser Ser Lys Asp Glu Thr Phe Trp Arg Glu Leu Pro Ser Val Pro Ser Leu Asp Leu Phe Arg Ala Ser Asp Ser Asn Ala Asn Gln Lys Glu Phe Asn Ser Leu Tyr Phe Tyr Gln Arg Ala Gly Lys Ser Leu Gly Gln Lys Arg His His Glu Ser Ser Phe Asn Ser Gly Asp Lys Glu Ser Leu Thr Gly Phe Met Cys Ser Gln Leu Pro Gln Phe Lys Lys Arg Arg Leu Ala Tyr Glu Lys Val Pro Gly Arg Val Asp Gly Gln Thr Arg Leu Arg Phe Phe

<210> 3926

<211> 539

<212> PRT

<213> Homo sapiens

⟨400⟩ 3926

Met Pro Gly Gln Arg Arg Ala Leu Ser Pro Lys Met Ala Ser Met Arg Glu Ser Asp Thr Gly Leu Trp Leu His Asn Lys Leu Gly Ala Thr Asp Glu Leu Trp Ala Pro Pro Ser Ile Ala Ser Leu Leu Thr Ala Ala Val He Asp Asn Ile Arg Lou Cys Phe His Gly Leu Ser Ser Ala Val Lys Leu Lys Leu Leu Gly Thr Leu His Leu Pro Arg Arg Thr Val Asp Glu Met Lys Gly Ala Leu Met Glu IIe IIe Gln Leu Ala Ser Leu Asp

Ser Asp Pro Trp Val Leu Met Val Ala Asp He Leu Lys Ser Phe Pro

			100					105					110		
Asp	Thr	Gly	Ser	Leu	Asn	Leu	Glu	Leu	Glu	Glu	Gln	Asn	Pro	Asn	Val
		115					120					125			
Gln	Asp	He	Leu	Gly	Glu	Leu	Arg	Glu	Lys	Val	Gly	Glu	Cys	Glu	Ala
	130					135					140				
Ser	Ala	Met	Leu	Pro	Leu	Glu	Cys	Gln	Tyr	Leu	Asn	Lys	Asn	Ala	Leu
145					150					155					160
Thr	Thr	Leu	Ala	Gly	Pro	Leu	Thr	Pro	Pro	Val	Lys	His	Phe	Gln	Leu
				165					170					175	
Lys	Arg	Lys	Pro	Lys	Ser	Ala	Thr	Leu	Arg	Ala	Glu	Leu	Leu	Gln	Lys
			180					185					190		
Ser	Thr	Glu	Thr	Ala	Gln	Gln	Leu	Lys	Arg	Ser	Ala	Gly	Val	Pro	Phe
		195					200					205			
His	Ala	Lys	Gly	Arg	Gly	Leu	Leu	Arg	Lys	Met	Asp	Thr	Thr	Thr	Pro
	210					215					220				
Leu	Lys	Gly	He	Pro	Lys	Gln	Ala	Pro	Phe	Arg	Ser	Pro	Thr	Ala	Pro
225					230					235					240
Ser	Val	Phe	Ser	Pro	Thr	Gly	Asn	Arg	Thr	Pro	lle	Pro	Pro	Ser	Arg
				245					250					255	
Thr	Leu	Leu	Arg	Lys	Glu	Arg	Gly	Val	Lys	Leu	Leu	Asp	He	Ser	Glu
			260					265					270		
Leu	Asp	Met	Va]	Gly	Ala	Gly	Arg	Glu	Ala	Lys	Arg	Arg	Arg	Lys	Thr
		275					280					285			
Leu	Asp	Ala	Glu	Val	Val	Glu	Lys	Pro	Ala	Lys	Glu	Glu	Thr	Val	Val
	290					295					300				
Glu	Asn	Ala	Thr	Pro	Asp	Tyr	Ala	Ala	Gly	Leu	Val	Ser	Thr	Gln	Lys
305					310					315					320
Leu	Gly	Ser	Leu	Asn	Asn	Glu	Pro	Ala	Leu	Pro	Ser	Thr	Ser	Tyr	Leu
				325					330					335	
Pro	Ser	Thr	Pro	Ser	Val	Val	Pro	Ala	Ser	Ser	Tyr	He	Pro	Ser	Ser
			340					345					350		
Glu	Thr	Pro	Pro	Ala	Pro	Ser	Ser	Arg	Glu	Ala	Ser	Arg	Pro	Pro	Glu
		355					360					365			
Glu	Pro	Ser	Ala	Pro	Ser	Pro	Thr	Leu	Pro	Ala	Gln	Phe	Lys	G1n	Arg
	370					375					380				

Ala Pro Met Tyr Asn Ser Gly Leu Ser Pro Ala Thr Pro Thr Pro Ala 390 385 Ala Pro Thr Ser Pro Leu Thr Pro Thr Thr Pro Pro Ala Val Ala Pro 410 Thr Thr Gln Thr Pro Pro Val Ala Met Val Ala Pro Gln Thr Gln Ala 420 425 Pro Ala Gln Gln Pro Lys Lys Asn Leu Ser Leu Thr Arg Glu Gln 440 445 Met Phe Ala Ala Gln Glu Met Phe Lys Thr Ala Asn Lys Val Thr Arg 450 455 460 Pro Glu Lys Ala Leu Ile Leu Gly Phe Met Ala Gly Ser Arg Glu Asn 475 470 Pro Cys Gln Glu Gln Gly Asp Val Ile Gln Ile Lys Leu Ser Glu His 490 485 Thr Glu Asp Leu Pro Lys Ala Asp Gly Gln Gly Ser Thr Thr Met Leu 500 505 510 Val Asp Thr Val Phe Glu Met Asn Tyr Ala Thr Gly Gln Trp Thr Arg 520 525 Phe Lys Lys Tyr Lys Pro Met Thr Asn Val Ser 530 535

<210> 3927

<211> 712

<212> PRT

<213> Homo sapiens

<400> 3927

 Met Leu Lys
 Asp Tyr Leu Ser Val Ala Arg Asp Ala Leu Arg Thr Gln

 J
 5
 10
 15

 Lys Glu Leu Tyr His Val Lys Glu Gln Arg Leu Ala Leu Ala Leu Asp 25
 30

 Glu Tyr Val Arg Leu Asn Asp Ala Tyr Lys Glu Lys Ser Ser Ser His 35
 40
 45

 Thr Ser Leu Phe Ser Gly Ser Ser Ser Ser Ser Thr Lys Tyr Asp Pro Asp

50 55 60

He	Leu	Lys	Ala	Glu	Ile	Ser	Thr	Thr	Arg	Leu	Arg	Val	Lys	Glu	Leu
65					70					75					80
Lys	Arg	Glu	Leu	Ser 85	Gln	Met	Lys	Gln	Glu 90	Leu	Leu	Tyr	Lys	G1u 95	Gln
Gly	Phe	Glu	Thr 100	Leu	Gln	Gln	lle	Asp 105	Lys	Lys	Met	Ser	Gly 110	Gly	Gln
Ser	Gly	Tyr 115	Glu	Leu	Ser	Glu	Ala 120	Lys	Λla	lle	Leu	Thr 125	Glu	Leu	Lys
Ser	Ile 130	Arg	Lys	Ala	Ile	Ser 135	Ser	Gly	Glu	Lys	Glu 140	Lys	Gln	Asp	Leu
Met 145	Gln	Ser	Leu	Ala	Lys 150	Leu	Gln	Glu	Arg	Phe 155	His	Leu	Asp	G]n	Asn 160
]]e	Gly	Arg	Ser	Glu 165	Pro	Asp	Leu	Arg	Cys 170	Ser	Pro	Val	Asn	Ser 175	His
Leu	Cys	Leu	Ser 180	Arg	Gln	Thr	Leu	Asp 185	Ala	Gly	Ser	Gln	Thr 190	Ser	He
Ser	Gly	Asp 195	lle	Gly	Va}	Arg	Ser 200	Arg	Ser	Asn	Leu	Ala 205	Glu	Lys	Val
Arg	Leu 210	Ser	Leu	Gln	Tyr	Glu 215	Glu	Ala	Lys	Arg	Ser 220	Met	Ala	Asn	Leu
Lys 225	Ile	Glu	Leu	Ser	Lys 230	Leu	Asp	Ser	Glu	Ala 235	Trp	Pro	Gly	Ala	Leu 240
Asp	lle	Glu	Lys	G1u 245	Lys	Leu	Met	Leu	11e 250	Asn	Glu	Lys	Glu	Glu 255	Leu
Leu	Lys	Glu	Leu 260	Gln	Phe	Val	Thr	Pro 265	Gln	Lys	Arg	Thr	GIn 270	Asp	Glu
Leu	Glu	Arg 275	Leu	Glu	Ala	Glu	Arg 280	Gln	Arg	Leu	Glu	Glu 285	Glu	Leu	Leu
Ser	Val 290	Arg	Gly	Thr	Pro	Ser 295	Arg	Ala	Leu	Ala	Glu 300	Arg	Leu	Arg	Leu
G1u 305	Glu	Arg	Arg	Lys	Glu 310	Leu	Leu	Gln	Lys	Leu 315	Glu	Glu	Thr	Thr	Lys 320
Leu	Thr	Thr	Tyr	Leu 325	His	Ser	Gln	Leu	Lys 330	Ser	Leu	Ser	Ala	Ser 335	Thr
Leu	Ser	Met	Ser 340	Ser	Gly	Ser	Ser	Leu 345	Gly	Ser	Leu	Ala	Ser 350	Ser	Arg

G1 y	Ser	Leu	Asn	Thr	Ser	Ser	Arg	Gly	Ser	Leu	Asn	Ser	Leu	Ser	Ser
		355					360					365			
Thr	Glu	Leu	Tyr	Tyr	Ser	Ser	Gln	Ser	Asp	Gln	11e	Asp	Val	Asp	Tyr
	370					375					380				
Gln	Tyr	Lys	Leu	Asp	Phe	Leu	Leu	Gln	Glu	Lys	Ser	Gly	Tyr	He	Pro
385					390					395					400
Ser	Gly	Pro	He	Thr	Thr	He	His	Glu	Asn	Glu	Val	Val	Lys	Ser	Pro
				405					410					415	
Ser	Gln	Pro	Gly	Gln	Ser	Gly	Leu	Cys	Gly	Val	Ala	Ala	Ala	Ala	Thr
			420					425					430		
G1 y	His	Thr	Pro	Pro	Leu	Ala	Glu	Ala	Pro	Lys	Ser	Val	Ala	Ser	Leu
		435					440					445			
Ser	Ser	Arg	Ser	Ser	Leu	Ser	Ser	Leu	Ser	Pro	Pro	Gly	Ser	Pro	Leu
	450					455					460				
	Leu	G1u	Gly	Thr		Pro	Met	Ser	Ser		His	Asp	Ala	Ser	
465	0.7	5.1			470				_	475		_	_		480
His	GIn	Phe	Thr		Asp	Phe	Glu	Asp		Glu	Leu	Ser	Ser		Phe
		- 1		485	T.1	0.7			490			_	_	495	
Ala	Asp	He		Leu	He	Glu	Asn		He	Leu	Leu	Asp		Asp	Ser
C1	61	43.	500	C1.	C .	,	C	505	4				510	C.1	0
61 y	бту		ser	GIN	Ser	Leu		61u	Asp	Lys	Asp		Asn	GJu	Cys
۸1	Λ	515	D	1	Т	C1	520	TI.	A T	Δ.	V. 1	525		C	
Ala	530	GIU	110	Leu	Tyr	G1u 535	GIŸ	ınr	ATA	Asp		GIU	Lys	ser	Leu
Pro		Ara	Ana	Vo.1	110	His	Lou	Lan	C1	Clu	540	Thu	Than	Cua	Vol.
545	Lys	nı g	лıg	vai	550	1115	Leu	Leu	OTY	555	Lys	1111	1111	Cys	560
	Ala	Ala	Val	Ser		Glu	Ser	Va l	Ala		Asn	Ser	G1v	Val.	
00.		7710		565	·iop	oru	561	, , ,	570	013	пор	501	01,	575	1 3 1
Glu	Ala	Phe	Val		Gln	Pro	Ser	Glu		Glu	Asp	Val	Thr		Ser
			580					585					590	- 2 -	
Glu	Glu	Asp	Va]	Ala	lle	Val	Glu		Ala	G1n	Va]	Gln	Пе	Gly	Leu
		595					600					605		•	
Arg	Tyr	Asn	Ala	Lys	Ser	Ser	Ser	Phe	Met	Val	He	He	Ala	G1n	Leu
	610					615					620				
Arg	Asn	Leu	His	Ala	Phe	Leu	Ile	Pro	His	Thr	Ser	Lys	Val	Tyr	Phe
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710

<210> 3928

705

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3928

Met Gly Ser His Tyr Val Ala Gln Val Gly Val Gln Trp Leu Phe Ile 1 5 10 15 15 Gly Met Val Ile Val His Cys Ser Leu Glu Leu Val Ala Ser Ser Asp 20 25 30 Arg Pro Ala Ser Ala Ser Arg Val Ala Arg Thr Ile Tyr Ala His Pro

rg Pro Ala Ser Ala Ser Arg val Ala Arg Inr lle lyr Ala His Pro 35 40 45

Phe Ala Trp Leu Lys Leu Tyr Ser Phe Cys Ser Tyr Pro His Pro Cys
50 55 60

Val Phe Ile Ser Arg Lys Ser Thr Ile Ser Phe Ile His Met Gly Leu 65 70 75 80

Thr Ile Ser Tyr His Gln Ser Ser Gly Val Met Asn Gly Met Leu Leu 85 90 95

Phe Tyr Leu Tyr

100

<210> 3929

<211> 933

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Leu Arg Phe Pro Phe Lys Ala Gly Val Val Ser Pro Val Asp Phe Leu

Gln His Gln Gly Trp Gly Gly 11e Lys Ala Leu Ser Glu Met Asp Glu

Phe	Lys	Asn	Leu 260	Asp	Ser	Asp	lle	Glu 265	Gly	Ser	Ala	Lys	Arg 270	Trp	Lys
Lys	Leu	Val 275	Glu	Ser	Glu	Ala	Pro 280	Glu	Lys	Glu	He	Phe 285	Pro	Lys	Glu
Trp	Lys 290	Asn	Lys	Thr	Ala	Leu 295	Gln	Lys	Leu	Cys	Met 300	Va]	Arg	Cys	Leu
Arg	Pro	Asp	Arg	Met	Thr	Tyr	Ala	He	Lys	Asn	Phe	Va]	Glu	Glu	Lys
305					310					315					320
Met	Gly	Ser	Lys		Val	Glu	Gly	Arg		Val	Glu	Phe	Ser		Ser
Tyr	Glu	Glu	Sor	325	Pro	Ser	The	Son	330	Dha	Dho	Ha	Lau	335	Due
1 9 1	Olu	Giu	340	361	110	261	1111	345	116	rne	THE	116	350	sei	110
Gly	Val	Asp		Leu	Lys	Asp	Val		Ala	Leu	Glv	Lvs		Leu	Glv
		355					360					365	·		•
Phe	Thr	He	Asp	Asn	Gly	Lys	Leu	His	Asn	Va1	Ser	Leu	Gly	Gln	Gly
	370					375					380				
G1n	Glu	Val	Val	Ala	Glu	Asn	Ala	Leu	Asp	Val	Ala	Ala	Glu	Lys	Gly
385					390					395					400
His	Trp	Val	lle		Gln	Asn	He	His		Val	Ala	Arg	Trp		Gly
Thu	Lau	A a.m.	Lua	405	1	C1	Λ	т	410	т)	C1	C .		415	
1111	Leu	ASP	420	Lys	Leu	Glu	Arg	1yr 425	ser	ınr	GIY	ser	нт s 430	GJu	Asp
Tvr	Arg	Val		He	Ser	Ala	Glu		Ala	Pro	Ser	Pro		Thr	His
J	Ü	435					440					445			
Пe	He	Pro	Gln	G1 y	He	Leu	G] u	Asn	Ala	Пе	Lys	He	Thr	Asn	61u
	450					455					460				
Pro	Pro	Thr	Gly	Met	His	Ala	Asn	l.eu	His	Lys	Ala	Leu	Asp	Leu	Phe
465					470					475					480
Thr	Gln	Asp	Thr		Glu	Met	Cys	Thr		Glu	Met	Glu	Phe	Lys	Cys
				485		_			490					495	
Met	Leu	Phe		Leu	Cys	Tyr	Phe		Ala	Val	Val	Ala		Arg	Arg
lve	Pho	Glv	500	Cln	Clv	Trp	Acn	505	Sar	Tun	Pro	Dho	510	Aon	C1.,,
Lys	1116	515	1110	9111	OIY	11 b	520	AI g	961	1 9 3	110	525	ASII	nSII	Oly
Asp	Leu		11e	Ser	Пe	Asn		Leu	Tyr	Asn	Tyr		Glu	Ala	Asn
-	530					535			-		540				

Pro	Lys	Val	Pro	Trp	Asp	Asp	Leu	Arg	Tyr	Leu	Phe	Gly	Glu	lle	Met
545					550					555					560
Tyr	Gly	G]y	His	He	Thr	Asp	Asp	Trp	Asp	Arg	Arg	Leu	Cys	Arg	Thr
				565					570					575	
Tyr	Leu	Ala	Glu	Tyr	11e	Arg	Thr	Glu	Met	Leu	G1u	Gly	Asp	Val	Leu
			580					585					590		
Leu	Ala	Pro	Gly	Phe	Gln	lle	Pro	Pro	Asn	Leu	Asp	Tyr	Lys	Gly	Tyr
		595					600					605			
His	Glu	Tyr	He	Asp	Glu	Asn	Leu	Pro	Pro	Glu	Ser	Pro	Tyr	Leu	Tyr
	610					615					620				
Gly	Leu	His	Pro	Asn	Ala	Glu	Ile	Gly	Phe	Leu	Thr	Val	Thr	Ser	Glu
625					630					635					640
Lys	Leu	Phe	Arg		Val	Leu	Glu	Met		Pro	Lys	Glu	Thr	Asp	Ser
				645					650					655	
GIy	Ala	GIy		G] y	Val	Ser	Arg		Glu	Lys	Val	Lys		Val	Leu
			660					665					670		
Asp	Asp		Leu	Glu	Lys	He		Glu	Thr	Phe	Asn		Ala	Glu	He
и.	4.7	675		. 1	6.1		680	ъ.	m			685			
меι		Lys	Ala	Ala	Glu		lhr	Pro	lyr	Val		Val	Ala	Phe	GIn
Clu	690	C1	Λης	Mat	Aan	695	Lau	TL	Λ	C1	700	A	Δ	C	1
705	Cys	Glu	MI B	меt	Asn 710	11e	Leu	Imr	ASII		мет	Arg	Arg	ser	
	C.Lu	Lou	Acn	Lou	Gly	Lou	Lve	C1 _v	Clu	715	Tha	110	The	Tha	720
Lys	01u	Leu	АЗП	725	Gry	Leu	Lys	Oly	730	Leu	1111	116	1111	735	ASP
Val	Glu	Asn	Leu		Thr	Ala	Leu	Pho		Aen	Thr	Val	Pro		Thr
, (1)	Olu	ПОР	740	001	• • • • • • • • • • • • • • • • • • • •	Mia	LCu	745	1) 1	изр	1111	141	750	пър	1111
Trp	Val	Ala		Ala	Tyr	Pro	Ser		Met	G1 v	Leu	Ala		Trp	Tvr
		755	6		- 2 -		760		.,,,,,	01)	Boa	765		.т.р	• , •
Ala	Asp		Leu	Leu	Arg	He		61u	Leu	Glu	Ala		Thr	Thr	Asp
	770				Ü	775					780				
Phe	Ala	Leu	Pro	Thr	Thr	Val	Trp	Leu	Ala	Gly		Phe	Asn	Pro	Gln
785					790					795					800
Ser	Phe	Leu	Thr	Ala	He	Met	Gln	Ser	Met	Ala	Arg	Lys	Asn	Glu	Trp
				805					810					815	
Pro	Leu	Asp	Lys	Met	Cys	Leu	Ser	Val	Glu	Val	Thr	Lys	Lys	Asn	Arg
			820					825					830		

Glu Asp Met Thr Ala Pro Pro Arg Glu Gly Ser Tyr Val Tyr Gly Leu Phe Met Glu Gly Ala Arg Trp Asp Thr Gln Thr Gly Val Ile Ala Glu Ala Arg Leu Lys Glu Leu Thr Pro Ala Met Pro Val Ile Phe Ile Lys Ala Ile Pro Val Asp Arg Met Glu Thr Lys Asn Ile Tyr Glu Cys Pro Val Tyr Lys Thr Arg Ile Arg Gly Pro Thr Tyr Val Trp Thr Phe Asn Leu Lys Thr Lys Glu Lys Ala Ala Lys Trp Ile Leu Ala Ala Val Ala Leu Leu Gln Val <210> 3930 <211> 108 <212> PRT <213> Homo sapiens <400> 3930 Met Glu Ser Arg Ser Val Ala Gln Ala Gly Val Gln Trp Asp Asn Phe Ser Ser Leu Gln Pro Pro Pro Pro Gly Phe Glu Arg Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Cys Met Arg Pro Pro Pro His Leu Ala Asn Phe Cys Ile Phe Ser Gly Asp Gly Val Ser Pro Arg Trp Pro Gly Arg Tyr Arg Thr Pro Asp Leu Arg Arg Ser Thr Arg Leu Gly Leu Pro

Arg Cys Trp Asp Tyr Arg Arg Glu Thr Gln Arg Leu Ala Cys Pro Phe

Tyr Val Leu Pro Ser Phe Leu Phe Phe Ser Phe Leu
100 105

<210> 3931

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3931

Met Ser Arg Gly Cys Ser Ser Asp Leu Arg Phe His Thr Trp Leu Gly

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Leu Arg Met Leu Lys Asn Ile lle Ala Val Ala Leu Leu Met Leu Gly
20 25 30

Lys Asn Glu Lys Glu Ala Pro Ala Pro Pro Met Glu Pro Glu Val Pro
35 40 45

Glu Met Ser Gln Ser Lys Thr Glu His Met Lys Thr Pro Glu Glu Glu
50 55 60

Leu Gln Pro Glu Ser Ser Pro Ala Glu Thr Ser Ala Cys Lys Asp Pro 65 70 75 80

Leu Lys Pro Leu Lys Ile Arg Pro Val Ser Gln Pro Phe Val Asn Pro
85 90 95

Ala Val Lys Asn Lys Ala Glu Glu Cys Glu Thr Trp Ile Asp Arg Phe 100 105 110

Arg Lys Leu Glu Asn Ala Leu Tyr Leu Cys Asp Leu Ser Asn Thr Gly 115 120 125

Val Leu Glu Lys Glu Arg Ala Arg Arg Leu Ile His Asn Tyr Asn Leu 130 135 140

Arg Phe Arg Ser Gly Glu Asn Met Leu Leu Glu Pro Ala Leu Arg Tyr 165 170 175

Leu Lys Glu Leu

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<211> 106
<212> PRT
<213> Homo sapiens
<400> 3932
Met Lys Trp Gln Arg Met Leu Cys Val His Gln Ile Pro Ser Cys Leu
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                                     10
Pro Glu Tyr Ser Asp Tyr Asn Ser Gln Ser Pro Leu Tyr Leu Asp Gly
                                 25
             20
                                                      30
Ala Val Glu Leu Phe Cys Gly Leu Cys Ser Val Gly Gly Ser Gly Ile
                             40
Asn Leu Leu Cys Ser Pro Asn Ser Leu Ser Leu Cys Trp Arg Asp Val
     50
                         55
                                              60
Gly Asp Leu Met Glu Asp Ala Glu Val Leu Gly Asp Val Arg Ala Met
 65
                     70
                                          75
Arg Trp Lys Ser Pro Gly Pro Arg Val Thr Val Trp Asn Arg Asp Pro
                 85
                                      90
                                                          95
Thr Ala Leu Glu His Glu He Ser Glu Lys
            100
                                 105
<210> 3933
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Met Ala Val Pro Met Pro Ser Lys Arg Arg Ser Leu Val Val Gln Thr
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                                                          15
Ser Met Asp Ala Tyr Thr Pro Pro Asp Thr Ser Ser Gly Ser Glu Asp
                                 25
Glu Gly Ser Val Gln Gly Asp Pro Gln Gly Thr Pro Thr Ser Ser Gln
         35
                             40
                                                  45
Gly Ser Ile Asn Met Glu His Trp Ile Ser Gln Ala Ile His Gly Ser
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55

60

<210> 3932

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				85					90					95	
His	Ser	Ala	Pro	Pro	Asp	Va]	Thr	Thr	Tyr	Thr	Ser	Glu	His	Ser	Пе
			100					105					110		
G]n	Va]	Glu	Arg	Pro	Gln	Gly	Ser	Thr	Gly	Ser	Arg	Thr	Ala	Pro	Lys
		115					120					125			
Tyr	Gly	Asn	Ala	Glu	Leu	Met	Glu	Thr	Gly	Asp	Gly	Val	Pro	Val	Ser
	130					135					140				
Ser	Arg	Val	Ser	Ala	Lys	Ile	Gln	Gln	Leu	Val	Asn	Thr	Leu	Lys	Arg
145					150					155					160
Pro	Lys	Arg	Pro	Pro	Leu	Arg	Glu	Phe	Phe	Val	Asp	Asp	Phe	Glu	Glu
				165					170					175	
Leu	Leu	Glu	Val	Gln	Gln	Pro	Asp	Pro	Asn	Gln	Pro	Lys	Pro	Glu	Gly
			180					185					190		
Ala	Gln	Met	Leu	Ala	Met	Arg	Gly	Glu	Gln	Leu	Gly	Val	Val	Thr	Asn
		195					200					205			
Trp	Pro	Pro	Ser	Leu	Glu	Ala	Ala	Leu	Gln	Arg	Trp	Gly	Thr	Ile	Ser
	210					215					220				
Pro	Lys	Ala	Pro	Cys	Leu	Thr	Thr	Met	Asp	Thr	Asn	Gly	Lys	Pro	Leu
225					230					235					240
Tyr	He	Leu	Thr	Tyr	Gly	Lys	Leu	Trp	Thr	Arg	Ser	Met	Lys	Val	Ala
				245					250					255	
Tyr	Ser	He	Leu	His	Lys	Leu	Gly	Thr	Lys	Gln	Glu	Pro	Met	Va]	Arg
			260					265					270		
Pro	G] y	Asp	Arg	Val	Ala	Leu	Val	Phe	Pro	Asn	Asn	Asp	Pro	Ala	Ala
		275					280					285			
Phe	Met	Ala	Ala	Phe	Tyr	G1y	Cys	Leu	Leu	Ala	Glu	Val	Val	Pro	Val
	290					295					300				
Pro	He	Glu	Val	Pro	Leu	Thr	Arg	Lys	Asp	Ala	Gly	Ser	Gln	Gln	He
305					310					315					320
Gly	Phe	Leu	Leu	Gly	Ser	Cys	Gly	Val	Thr	Va]	Ala	Leu	Thr	Ser	Asp
				325					330					335	
Ala	Cys	His	Lys	Gly	Leu	Pro	Lys	Ser	Pro	Thr	Gly	Glu	lle	Pro	G1n
			340					345					350		

Phe	Lys	Gly	Trp	Pro	Lys	Leu	Leu	Trp	Phe	Val	Thr	Glu	Ser	Lys	His
		355					360					365			
Leu	Ser	Lys	Pro	Pro	Arg	Asp	Trp	Phe	Pro	His	He	Lys	Asp	Ala	Asn
	370					375					380				
Asn	Asp	Thr	Ala	Tyr	He	G]u	Tyr	Lys	Thr	Cys	Lys	Asp	Gly	Ser	Val
385					390					395					400
Leu	Gly	Val	Thr	Val	Thr	Arg	Thr	Ala	Leu	Leu	Thr	His	Cys	Gln	Ala
				405					410					415	
Leu	Thr	Gln	Ala	Cys	Gly	Tyr	Thr	Glu	Ala	Glu	Thr	Ile	Val	Asn	Val
-			420					425					430		
Leu	Asp		Lys	Lys	Asp	Val	Gly	Leu	Trp	His	Gly	He	Leu	Thr	Ser
		435					440					445			
Val		Asn	Met	Met	His		Пе	Ser	He	Pro	Tyr	Ser	Leu	Met	Lys
	450					455					460				
	Asn	Pro	Leu	Ser	Trp	He	Gln	Lys	Val		Gln	Tyr	Lys	Ala	
465					470					475					480
Val	Ala	Cys	Val		Ser	Arg	Asp	Met		Trp	Ala	Leu	Val		His
		0.7		485					490					495	
Arg	Asp	GIn		lyr	He	Asn	Leu		Ser	Leu	Arg	Met		He	Val
A T		C1	500		10	T	C	505			0		510	151	
Ala	Asp		Ara	Asn	Pro	Lrp		11e	Ser	Ser	Cys		Ala	Phe	Leu
A	V = 1	515	C1	C	1	CT	520	Λ	C1	C1	V I	525		D	6
ASII		rne	OTB	261.	Lys		Leu	Arg	Gin	GIU		116	Cys	Pro	Cys
A10	530	Can	Dro	Clu.	Ale	535	Thu	Vol	A 1 a.	11.	540	Λ	D	ть	A
545	261	301	110	oru	A1a 550	Leu	1113	val	мта	555	Aig	AI g	110	1111.	
	Ser	Aen	Gln	Pro	Pro	G1 v	Δνα	Clv	Val		Sor	Mot	Hic	61 _v	560
пэр	561	ASH	Ojn	565	110	O1 y	шg	O1 y	570	Leu	361	Me C	1112	575	Leu
Thr	Tvr	Gl v	Val		Arg	Val	Asn	Ser		Glu	Lve	Leu	Ser		Lan
	.,,	G. 3	580	110	.11 6	, 0.1	.iop	585	014	014	123.0	1,04	590	101	LCu
Thr	Val	Gln		Val	Gly	Leu	Val		Pro	Glv	Ala	11e		Cvs	Ser
		595				.,	600			•••	.,,,	605		0,0	501
Val	Lvs		Asp	Glv	Val	Pro		Leu	Cvs	Arg	Thr		Glu	He	Glv
	610		•	٠		615			-, -	0	620	J *			
Glu		Cys	Val	Cys	Ala		Ala	Thr	Glv	Thr		Tyr	Tvr	Glv	Leu
625				-	630				-	635		-	٠	•	640

Ser Gly Met Thr Lys Asn Thr Phe Glu His Thr Ser Asn Lys Gly Lys 645 650 655

<210> 3934

<211> 181

<212> PRT

<213> Homo sapiens

<400> 3934

Met Leu Ile Met Tyr Glu Gln Arg Lys Asp Ile Lys Leu Glu Leu Thr
1 5 10 15

Phe Lys Gly Glu Ala Lys His Lys Arg Leu Lys Asn Leu Gln Thr Ser 20 25 30

His Val Val Glu Lys Lys Ser Pro Phe Ser Gly Glu Gln Phe Arg Leu 35 40 45

Ala Ala Glu Ile Cys Ile Ala Lys Arg Lys Ala His Ala Asp Ser His 50 55 60

Asp Asn Gly Gly Asn Ala Ser Lys Ala Phe Gln Arg Ser Leu Trp Gln
65 70 75 80

Pro Leu Pro Ser Gln Ala Trp Arg Pro Gly Arg Thr Glu Trp Phe Cys
85 90 95

Gly Pro His Leu Glu Pro Asp Tyr Pro Val Gln Ala Trp Asp Thr Ala 100 105 110

Pro Cys Ile Pro Ala Ile Leu Ala Pro Ala Val Ala Gln Arg Gly Pro

115 120 125

Gly Thr Ala Trp Ala Thr Ala Ser Glu Gly Ala Asn His Lys Pro Trp 130 135 140

Trp Phe Pro His Ala Val Lys Pro Val Gly Met Gln Ser Ala Arg Val 145 150 155 160

Glu Ala Trp Glu Pro Pro Pro Gly Phe Gln Arg Met Cys Gly Lys Ala 165 170 175

Trp Met Ser Arg Gln

<211> 129 <212> PRT <213> Homo sapiens <400> 3935 Met Ala Cys Arg Glu Arg Ile Gly Asp Asn Ser Gly Pro Gln Arg Arg Ala Ala Thr Glu Gly Glu Ala Gly Glu Arg Ala Ala Pro Ala Leu 25 Gly Arg Val Leu Trp Ser Thr Gln Lys Asp Cys Pro Gly Ser Lys Gly 40 45 Pro Glu Glu Lys Ala Ala Leu Gly Ser Ala Pro Pro Ala Gly Ser Leu 50 55 60 Leu Pro Arg Glu Ala Glu Arg Cys Pro Pro Thr Arg Arg Ala Leu Cys 70 75 Tyr Pro Val Leu Ser Gly Phe Ala Glu Pro Ser Thr Thr Gln Pro Arg 85 90 Pro Pro Glu Lys Thr Pro Leu Thr Pro Thr Ser Cys His Pro Thr Ala 100 105 Cys Trp Gly Asp Arg Pro Gln Cys Leu He His Gly Leu Leu Arg Arg 120 125 Phe <210> 3936 <211> 533 <212> PRT <213> Homo sapiens <400> 3936 Met Leu Pro Arg Gln Ala Ser Ile Ser Cys Ala Gln Gly Ile Leu Leu

10

15

<210> 3935

1

Pro	Gln	Pro		Glu	Leu	Leu	Arg		Gln	Leu	Asn	Leu		Met	Asn
			20					25					30		
Glu	Gln		Glu	Lys	He	Thr		Lys	Val	He	Leu	Ser	Met	Thr	Ala
		35					40					45			
Lys	Glu	His	His	Lys	Glu	Gln	Glu	Glu	Val	Ser	Arg	Arg	Пе	Asp	Glu
	50					55					60				
Leu	Gln	Thr	Ala	Пе	Lys	Ser	Asn	He	Gly	His	Leu	Cys	Lys	Leu	Gly
65					70					75					80
Pro	Gln	Leu	Gln	Ala	Glu	Gln	Glu	Gln	Phe	Ser	Ser	Tyr	Val	Tyr	Gln
				85					90					95	
His	He	Lys	Ser	Leu	Pro	Ala	Asn	Thr	Leu	Val	Pro	Gly	G1 y	Leu	Gln
			100					105					110		
Leu	Lys	Va]	Phe	Glu	Asn	Gly	Lys	Asn	Thr	Gly	Glu	He	Ser	Val	Gly
		115					120					125			
He	Ser	Lys	Lys	Asp	Leu	Gly	Ser	Asp	Ser	Pro	11e	Gln	Thr	Asp	His
	130					135					140				
Met	Met	Glu	Arg	Leu	Leu	Leu	Lys	lle	His	Gln	Arg	Leu	Gln	Gly	Ser
145					150					155					160
Ser	He	Asn	Pro	Pro	Gly	Leu	Asn	Tyr	Ser		Met	Arg	Leu	Phe	
				165					170					175	
Glu	Asn	Gly	Gln	Glu	lle	Lys	Asn	Pro	Leu	Ser	Leu	Lys	Asn		Gln
			180					185					190		
Lys	He	Trp	Val	Ser	Tyr	Gly	Arg	Ala	Tyr	Arg	Ser	Pro	Leu	Asn	Leu
		195					200			-		205			
Ala	Leu	Gly	Leu	Thr	Phe	Asp	Arg	Va]	Ser	Ala	Phe	Ala	Arg	Gly	Asp
	210					215					220		2	-	-
lle	Met	Val	Ala	Tyr	Lys	Thr	Phe	Leu	Asp	Pro		Ala	Val	Leu	Leu
225					230				•	235					240
Pro	Gly	Cys	Gly	Asn	Trp	Glu	Val	Cys	Glu	Gly	Phe	Pro	He	Asn	Phe
			-	245	-			-	250	•				255	
Asn	Cys	Thr	Ser		Gln	Пe	Pro	Asp		Phe	Glu	Lys	Val		Leu
	•		260					265				- •	270		
Glu	Asn	His		Leu	Gln	Asn	Lvs		Asp	Pro	Asn	Пe		Leu	llis
		275					280					285		.,. 0	
Ala	Ser		Ser	He	Glv	Lys		Ser	Phe	Ser	Glv		Glu	Ala	Ser
					3		٠. ٢	~				1			

	290					295					300				
Ser	Arg	Ser	Gln	lle	Ala	Pro	Ser	He	Leu	Trp	Pro	Val	Ala	Ser	Val
305					310					315					320
Trp	Leu	He	Thr	Lys	Thr	Gly	Met	Пе	Leu	Ser	Arg	Ala	He	Thr	Gln
				325					330					335	
Gly	Cys	Leu	Ala	He	Gly	His	Pro	He	Arg	Val	Lys	Ala	Λla	Glu	Gly
			340					345					350		
Thr	Ser	Leu	Glu	Gly	Tyr	Lys	Leu	lle	Leu	Gln	Lys	Arg	His	Ser	G] y
		355					360					365			
Asp	Asp	Ser	Gln	Lys	Trp	Val	Phe	Gly	Thr	Asp	Gly	Cys	lle	Tyr	Ser
	370					375					380				
Lys	Ala	Tyr	Pro	Gln	Phe	Val	Leu	Thr	Tyr	Leu	Glu	Glu	Leu	Asn	Ala
385					390					395					400
Gln	Val	Asp	Val	Thr	Gln	Thr	Glu	Tyr	His	He	His	His	Gly	Ala	Trp
				405					410					415	
Thr	Thr	Ala	His	Gln	Glu	His	Gly	Arg	Asn	Leu	Ala	Glu	Glu	Va]	Leu
			420					425					430		
Gln	Glu	Ser	Ala	Ser	Asn	Leu	Gly	Leu	Lys	Gln	Leu	Pro	Glu	Pro	Ser
		435					440					445			
Asp	Thr	His	Leu	Met	Pro	Glu	Gly	Ser	Leu	Glu	Glu	Thr	Gly	Glu	Leu
	450					455					460				
	Val	Ala	Leu	Va]	Arg	Lys	Leu	Glu	Glu		His	Pro	Lys	Ala	Ser
465					470					475					480
Ala	Gln	Arg	Trp		He	Lys	His	G] u	G1 y	Thr	Ser	Lys	Pro	Gły	Gln
				485					490					495	
Trp	Lys	His	Ser	Arg	Val	Glu	Asn	Pro	Leu	Trp	Asn	Lys		Thr	Tyr
			500					505					510		
Met	Trp		Val	Leu	Pro	Ser		Gln	Leu	Asn	Glu		Met	Gln	Thr
		515					520					525			
Glu		Gly	Arg	Arg											
	530														

<210> 3937

<211> 234

<212> PRT

<213> Homo sapiens

<400)> 39	937													
Met	Leu	Thr	Thr	Asp	Asp	Lys	Ala	Val	Val	Leu	Lys	Arg	Пe	His	Glu
1				5					10					15	
Val	His	Val	Lys	Met	Asp	Arg	Ser	Leu	Glu	Tyr	Gln	Pro	Val	Glu	Cys
			20					25					30		
Ala	Ile	Val	lle	Asn	Ala	Ala	Gly	Ala	Trp	Ser	Ala	Gln	He	Ala	Ala
		35					40					45			
Leu	Ala	Gly	Val	Gly	Glu	Gly	Pro	Pro	Gly	Thr	Leu	Gln	Gly	Thr	Lys
	50					55					60				
Leu	Pro	Val	Glu	Pro	Arg	Lys	Arg	Tyr	Val	Tyr	Val	Trp	His	Cys	Pro
65					70					75					80
GJn	Gly	Pro	Gly	Leu	Glu	Thr	Pro	Leu	Val	Ala	Asp	Thr	Ser	Gly	Ala
				85					90					95	
Tyr	Phe	Arg	Arg	Glu	Gly	Leu	Gly	Ser	Asn	Tyr	Leu	Gly	Gly	Arg	Ser
			100					105					110		
Pro	Thr	Glu	Gln	Glu	Glu	Pro	Asp	Pro	Ala	Asn	Leu	Glu	Val	Asp	His
		115					120					125			
Asp	Phe	Phe	Gln	Asp	Lys	Val	Trp	Pro	His	Leu	Ala	Leu	Arg	Val	Pro
	130					135					140				
Ala	Phe	Glu	Thr	Leu	Lys	Val	Gln	Ser	Ala	Trp	Ala	G1y	Tyr	Tyr	Asp
145					150					155					160
Tyr	Asn	Thr	Phe	Asp	Gln	Asn	Gly	Val	Val	Gly	Pro	His	Pro	Leu	Val
				165					170					175	
Val	Asn	Met	Tyr	Phe	Ala	Thr	Gly	Phe	Ser	Gly	His	Gly	Leu	Gln	Gln
			180					185					190		
Ala	Pro	Gly	Пe	Gly	Arg	Ala	Val	Ala	Glu	Met	Val	Leu	Lys	Gly	Arg
		195					200					205			
Phe	Gln	Thr	11e	Asp	Leu	Ser	Pro	Phe	Leu	Phe	Thr	Arg	Phe	Tyr	Leu
	210					215					220				
Gly	Glu	Lys	He	Gln	Glu	Asn	Asn	He	He						
225					230										

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⟨211⟩ 232
<212> PRT
<213> Homo sapiens
<400> 3938
Met Ala Asn Tyr Tyr Glu Val Leu Gly Val Gln Ala Ser Ala Ser Pro
Glu Asp Ile Lys Lys Ala Tyr Arg Lys Leu Ala Leu Arg Trp His Pro
             20
                                 25
Asp Lys Asn Pro Asp Asn Lys Glu Glu Ala Glu Lys Lys Phe Lys Leu
                             40
Val Ser Glu Ala Tyr Glu Val Leu Ser Asp Ser Lys Lys Arg Ser Leu
                         55
                                              60
Tyr Asp Arg Ala Gly Cys Asp Ser Trp Arg Ala Gly Gly Gly Ala Ser
65
                     70
                                          75
                                                              80
Thr Pro Tyr His Ser Pro Phe Asp Thr Gly Tyr Thr Phe Arg Asn Pro
                                     90
Glu Asp Ile Phe Arg Glu Phe Phe Gly Gly Leu Asp Pro Phe Ser Phe
                                105
                                                     110
Glu Phe Trp Asp Ser Pro Phe Asn Ser Asp Arg Gly Gly Arg Gly His
        115
                            120
                                                 125
Gly Leu Arg Gly Ala Phe Ser Ala Gly Phe Gly Glu Phe Pro Ala Phe
                        135
                                            140
Met Glu Ala Phe Ser Ser Phe Asn Met Leu Gly Cys Ser Gly Gly Ser
145
                    150
                                        155
                                                             160
His Thr Thr Phe Ser Ser Thr Ser Phe Gly Gly Ser Ser Ser Gly Ser
                165
                                    170
Ser Gly Phe Lys Ser Val Met Ser Ser Thr Glu Met lle Asn Gly His
                                185
Lys Val Thr Thr Lys Arg Ile Val Glu Asn Gly Gln Glu Arg Val Glu
        195
                            200
                                                 205
Val Glu Glu Asp Gly Gln Leu Lys Ser Val Thr Val Asn Gly Lys Glu
   210
                        215
                                            220
Gln Leu Lys Trp Met Asp Ser Lys
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<210> 3939 <211> 140 <212> PRT <213> Homo sapiens <400> 3939 Met Ala Gln Gln Arg Ala Leu Pro Gln Ser Lys Glu Thr Leu Leu Gln 10 Ser Tyr Asn Lys Arg Leu Lys Asp Asp Ile Lys Ser Ile Met Asp Asn 20 25 Phe Thr Glu Ile Ile Lys Thr Ala Lys Ile Glu Asp Glu Thr Gln Val 40 45 Ser Arg Ala Thr Gln Gly Glu Gln Asp Asn Tyr Glu Met His Val Arg 50 55 60 Ala Ala Asn Ile Val Arg Ala Gly Glu Ser Leu Met Lys Leu Val Ser 70 75 Asp Leu Lys Gln Phe Leu Ile Leu Asn Asp Phe Pro Ser Val Asn Glu 90 85 Ala lle Asp Gln Arg Asn Gln Gln Leu Arg Thr Leu Gln Glu Glu Cys 100 105 110 Asp Arg Lys Leu Ile Thr Leu Arg Asp Glu Ile Ser Ile Asp Leu Tyr 120 125 Glu Leu Glu Glu Glu Tyr Tyr Ser Ser Arg Tyr Lys 130 135 140

<210> 3940

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3940

Met Trp Lys Glu Asn Gly Lys Lys Pro Gly Ser Phe Pro Thr Gln Leu

1 5 10 15

Arg Pro Asn Tyr Gln Leu Asn Ser Ser Arg Asn Met Leu Thr Ser Thr

			20					25					30		
Ala	Val	Lys	His	Asp	Leu	Ala	Glu	Ser	Phe	Pro	Phe	Trp	Ala	Ser	Lys
		35					40					45			
Gly	Lys	Leu	Glu	Trp	Gln	His	11e	His	Gln	Gln	Pro	Pro	Tyr	Ser	Lys
	50					55					60				
Cys	Phe	Glu	Asp	His	Leu	Glu	Gln	Lys	Tyr	Val	Gln	Leu	Phe	Trp	Gly
65					70					75					80
Leu	Pro	Ser	Leu	His	Ser	Glu	Ser	Leu	His	Pro	Thr	Val	Phe	Val	Gln
				85					90					95	
His	Gly	Arg	Ser	Ser	Met	Phe	Val	Phe	Phe	Asn	Gly	He	Thr	Asn	Thr
			100					105					110		
Ser	Met	Ser	His	Glu	Ser	Pro	Val	Leu	Pro	Pro	Pro	Gln	Pro	Leu	Phe
		115					120					125			
Leu	Pro	Ser	Thr	Gln	Pro	Leu	Pro	Leu	Pro	GIn	Thr	Leu	Pro	Arg	Gly
	130					135					140				
Gln	Ser	Leu	His	Leu	Thr	Gln	Val	Lys	Ser	Leu	Ala	Gln	Pro	Gln	Ser
145					150					155					160
Pro	Phe	Pro	Ala	Leu	Pro	Pro	Ser	Pro	Leu	Phe	Leu	lle	Arg	Val	Cys
				165					170					175	
Gly	Val	Cys	Phe	His	Arg	Pro	G1n	Asn	Glu	Ala	Arg	Ser	Leu	Met	Pro
			180					185					190		
Ser	Glu	He	Asn	His	Leu	Glu	Trp	Asn	Va]	Leu	Gln	Lys	Va]	Gln	Glu
		195					200					205			
Ser		Trp	G]y	Leu	Pro	Ser	Va]	Val	Gln	Lys	Ser	Gln	Glu	Asp	Phe
	210					215					220				
Cys	Pro	Pro	Ala	Pro	Asn	Pro	Val	Leu	Val	Arg	Lys	Ser	Phe	Lys	
225					230					235					240
His	Val	Pro	lle		He	He	Pro	Gly		Phe	Pro	Leu	Ser		Glu
				245					250					255	
Val	Arg	Lys		Leu	Glu	Gln	His		Arg	Lys	Arg	Leu		Gln	Arg
			260					265					270		
Arg	Trp		Leu	Pro	Arg	Arg		His	GJu	Ser	Leu		Leu	Leu	Arg
•	<i>a</i> 1	275	,			0.1	280	_			0.1	285			0.1
rro		Asn	Lys	He	Ser	Glu	Leu	Ser	val	Ser		Ser	11e	HIS	Ыу
D.	290	4	1.7	C	1	295	C1	61	C1	Δ.	300	۸	W 1	,	
rro	Leu	Asn	11e	Ser	Leu	val	ចាប	U I V	61n	Arg	UVS	Asn	val	Leu	Lys

Lys Ser Ala Ser Ser Phe Pro Arg Ser Phe His Glu Arg Ser Ser Asn Met Leu Ser Met Glu Asn Val Gly Asn Tyr Gln Gly Cys Ser Gln Glu Thr Ala Pro Lys Lys Pro Ser Leu Ala <210> 3941 <211> 266 <212> PRT <213> Homo sapiens <400> 3941 Met Ala Glu Ala Gly Lys Val Pro Leu Ser Leu Gly Leu Thr Gly Gly Glu Ala Ala Glu Trp Pro Leu Gln Arg Tyr Ala Arg Cys 11e Pro Ser Asn Thr Arg Asp Pro Pro Gly Pro Cys Leu Glu Ala Gly Thr Ala Pro Cys Pro Thr Trp Lys Val Phe Asp Ser Asn Glu Glu Ser Gly Tyr Leu Val Leu Thr 11e Val 11e Ser Gly His Phe Phe 11e Phe Gln Gly Gln Thr Leu Leu Glu Gly Phe Ser Leu Ile Gly Ser Lys Asp Trp Leu Lys lle Val Arg Arg Val Asp Cys Leu Leu Phe Gly Thr Thr lle Lys Asp Lys Ser Arg Leu Phe Arg Val Gln Phe Ser Gly Glu Ser Lys Glu Gln Ala Leu Glu His Cys Cys Ser Cys Val Gln Lys Leu Ala Gln Tyr lle Thr Val Gln Val Pro Asp Gly Asn lle Gln Glu Leu Gln Leu lle Pro

Gly Pro Pro Arg Ala Thr Glu Ser Gln Gly Lys Asp Ser Ala Lys Ser

				165					170					175	
Val	Pro	Arg	Gln	Pro	Gly	Ser	His	Gln	His	Ser	Glu	Gln	Gln	Gln	Val
			180					185					190		
Cys	Val	Thr	Ala	Gly	Thr	Gly	Ala	Pro	Asp	Gly	Arg	Thr	Ser	Leu	Thr
		195					200					205			
Gln	Leu	Ala	Gln	Thr	Leu	Leu	Ala	Ser	Glu	Glu	Leu	Pro	His	Val	Tyr
	210					215					220				
Glu	Gln	Ser	Ala	Trp	Gly	Ala	Glu	Glu	Leu	Gly	Pro	Phe	Leu	Arg	Leu
225					230					235					240
Cys	Leu	Met	Asp	Gln	Asn	Phe	Pro	Ala	Phe	Val	Glu	Glu	Val	Glu	Lys
				245					250					255	
Glu	Leu	Lys	Lys	Leu	Ala	Gly	Leu	Arg	Asn						
			260					265							

<210> 3942

<211> 104

<212> PRT

<213> Homo sapiens

<400> 3942

Met Gln Ser Ser Trp Gln Val Pro Leu His Pro Pro Gly Ser Pro Trp

1 5 10 15

Pro Gln Leu Thr Leu Arg Ile Leu Pro Val Trp Gly Val Leu Arg Glu 20 25 30

Pro Leu Gln Ile Val Leu Glu Gln Gln Leu Val Pro Gly Asp Pro Leu 35 40 45

His Gly Leu Gln His Val Val Leu Gln Arg Gln Val Pro Ala Tyr Leu 50 55 60

Leu Leu Leu Trp Gly Gln Arg Glu His Trp Ala Leu Gln Gly His Val 65 70 75 80

Cys Gly Cys Gln Pro His Arg Leu Leu Ala Thr Thr Ala Pro Gly Ser 85 90 95

Cys Pro Glu Leu Ala Ala Gln Asn

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<211> 1080
<212> PRT
<213> Homo sapiens
<400> 3943
Met Leu Arg Leu Pro Lys Lys Arg Leu Pro Arg Phe Glu Gln Val Gln
                  5
                                     10
                                                          15
Asp Glu Asp Thr Tyr Leu Glu Asn Leu Ala Ile Gln Arg Asn Ala Ser
             20
                                 25
Ala Phe Phe Glu Lys Tyr Asp Arg Ser Glu Ile Gln Glu Leu Leu Thr
                             40
Thr Ala Leu Val Ser Trp Leu Ser Ala Lys Glu Asp Val Arg Ser Gln
     50
                         55
Val Asp Leu Pro Cys Gly Ile Met Ser Gln Met Asn Asn Val Gly Phe
                                         75
                     70
Ser Thr Ala Ile Leu Leu Thr Pro Val Asp Pro Thr Ala Leu Leu Asp
                 85 .
                                     90
                                                          95
Tyr Arg Glu Val His Gln Met 11e Arg Glu Leu Ala 11e Gly 11e Tyr
            100
                                105
Cys Leu Asn Gln Ile Pro Ser Ile Ser Leu Glu Ala Asn Tyr Asp Gln
                                                 125
        115
                            120
Ser Ser Ser Cys Gln Leu Pro Pro Ala Tyr Tyr Asp Thr Arg lle Gly
    130
                        135
Gln Ile Leu Ile Asn Ile Asp Tyr Met Leu Lys Ala Leu Trp His Gly
                    150
                                         155
lle Tyr Met Pro Lys Glu Lys Arg Ala Arg Phe Ser Glu Leu Trp Arg
                165
                                    170
Ala lle Met Asp lle Asp Pro Asp Gly Lys Pro Gln Thr Asn Lys Asp
                                185
                                                    190
            180
lle Phe Ser Glu Phe Ser Ser Ala Gly Leu Thr Asp lle Thr Arg Asp
                                                 205
        195
                            200
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Pro Asp Phe Asn Glu Ile Tyr Asp Glu Asp Val Asn Glu Asp Pro Thr

<210> 3943

	210					215					220				
Tyr	Asp	Pro	Asn	Ser	Pro	Glu	Glu	Thr	Ala	Val	Phe	Met	Lys	Tyr	Ala
225					230					235					240
Glu	Asn	He	Met	Leu	Lys	Leu	Thr	Phe	Ser	Thr	Thr	Gln	Пе	Gln	Gln
				245					250					255	
Tyr	Glu	Asn	Val	Phe	lle	Phe	Glu	Thr	Gly	Tyr	Trp	Leu	Thr	Asn	Ala
			260					265					270		
He	Lys	Tyr	Asn	Gln	Asp	Tyr	Leu	Asp	lle	Cys	Thr	Tyr	Gln	Arg	Leu
		275					280					285			
Gln	Gln	Arg	Leu	Tyr	Leu	Gln	Lys	Lys	Ile	Ile	Gln	Lys	His	Phe	Glu
	290					295					300				
Lys	Lys	Lys	Asp	He	Arg	Arg	Gly	He	Gly	Tyr	Leu	Lys	Leu	Пе	Cys
305					310					315					320
Phe	Leu	He	Pro	Phe	Leu	Leu	Ser	Leu	Lys	Lys	Lys	Met	Lys	Val	Pro
				325					330					335	
Tyr	Leu	Ser	Ser	Leu	Leu	Gln	Pro	Phe	Ser	Asp	Asp	Lys	Val	Lys	Thr
			340					345					350		
Glu	Arg	Glu	Leu	Pro	Pro	Phe	He	Tyr	Gly	Arg	Asp	Phe	Lys	Cys	Gln
		355					360					365			
Asn	Phe	His	Tyr	Lys	Glu	Asn	Gln	Tyr	Phe	His	Val	His	Gly	Gly	He
	370					375					380				
Glu	Phe	Asp	He	Ser	Thr	Pro	Ser	lle	Glu	Asn	Ala	Leu	Glu	Asp	Phe
385					390					395					400
G1n	Lys	Asn	Leu	Glu	Lys	lle	Arg	Asp	Cys	Ala	Ala	Asn	Thr	Phe	He
				405					410					415	
Glu	Asp	Ser	Gly	Tyr	Lys	Glu	Tyr	Tyr	Ser	Ile	Pro	Val	Met	Glu	Phe
			420					425					430		
His	Gly	Lys	Ser	Tyr	Tyr	Val	He	Tyr	Phe	Glu	Leu	Glu	Thr	Phe	Tyr
		435					440					445			
Gln	Gln	Leu	Tyr	Lys	Thr	Gln	Trp	Trp	Gly	Ala	11e	Asn	Glu	He	Val
	450					455					460				
Asn	Asn	Leu	Arg	Leu	Lys	Arg	Leu	Pro	Leu	Thr	Asp	Ala	Gln	Leu	His
465					470					475					480
Glu	Gln	Phe	Lys	Lys	Lys	Leu	Gly	Phe	Lys	Arg	Ala	Met	Lys	Cys	Lys
				485					490					495	
Ser	11e	Pro	Phe	Gly	Met	Lys	Ser	Ala	Va]	Glu	Arg	Gly	Leu	Ser	Ala

			500					505					510		
Val	Phe	His	Thr	Phe	Ser	Arg	Lys	Thr	Ser	Ser	Ser	Thr	Пe	Asn	Val
		515					520					525			
Ser	Asp	Glu	Ala	Gly	Tyr	Thr	He	Phe	His	His	Ala	Ala	Leu	His	Asn
	530					535					540				
Arg	Val	Ser	He	He	Cys	Gln	Leu	Cys	Λsn	Ala	Asn	Phe	Lys	Val	Asn
545					550					555					560
Gln	Arg	Arg	Phe	Val	Thr	Phe	Ser	Gln	Gly	Pro	Thr	Pro	Leu	His	Leu
				565					570					575	
Ala	Ala	Gln	Ala	Cys	Ser	Leu	Glu	Thr	Thr	Val	Cys	Leu	Leu	Cys	Ser
			580					585					590		
Lys	Ala	Asp	Tyr	Thr	Leu	Ser	Glu	Lys	Arg	Gly	Trp	Met	Pro	He	His
		595					600					605			
Phe	Ala	Ala	Phe	Tyr	Asp	Asn	Va]	Cys	11e	He	He	Ala	Leu	Cys	Arg
	610					615					620				
Lys	Asp	Pro	Ser	Leu	Leu	Glu	Ala	Glu	Ala	Thr	Ala	Glu	Asn	Gln	Cys
625					630					635					640
Thr	Pro	Leu	Leu	Leu	Ala	Ala	Thr	Ser	G1 y	Ala	Leu	Asp	Thr	Ile	Gln
				645					650					655	
Tyr	Leu	Phe	Ser	He	Gly	Ala	Asn	Trp	Arg	Lys	Thr	Asp	He	Lys	Gly
			660					665					670		
Asn	Asn	He	Пе	His	Leu	Ser	Val	Leu	Thr	Phe	His	Thr	Glu	Val	Leu
		675					680					685			
Lys	Tyr	He	Пе	Lys	Leu	Asn	Пе	Pro	Glu	Leu	Pro	Val	Trp	Lys	Thr
	690					695					700				
Leu	Val	Glu	Met	Leu	Gln	Cys	Glu	Ser	Tyr	Lys	Arg	Arg	Met	Met	Ala
705					710					715					720
Val	Met	Ser	Leu	Glu	Val	lle	Cys	Leu	Ala	Asn	Asp	Gln	Tyr	Trp	Arg
				725					730					735	
Cys	He	Leu	Asp	Ala	Gly	Thr	He	Pro	Ala	Leu	Пе	Asn	Leu	Leu	Lys
			740	•				745					750		
Ser	Ser	Lys	Пе	Lys	Leu	Gln	Cys	Lys	Thr	Va1	Gly	Leu	Leu	Ser	Asn
		755					760					765			
Пе	Ser	Thr	His	Lys	Ser	Ala	Val	His	Ala	Leu	Val	Glu	Ala	Gly	Gly
	770					775					780				
Пе	Pro	Ser	Leu	Пе	Asn	Leu	Leu	Val	Cvs	Asp	Glu	Pro	Glu	Val	His

785					790					795					800
Ser	Arg	Cys	Ala	Val	He	Leu	Tyr	Asp	He	Ala	Gln	Cys	Glu	Asn	Lys
				805					810					815	
Asp	Val	Пе	Ala	Lys	Tyr	Asn	G] y	He	Pro	Ser	Leu	He	Asn	Leu	Leu
			820					825					830		
Asn	Leu	Asn	Пе	Glu	Asn	Val	Leu	Val	Asn	Val	Met	Asn	Cys	He	Arg
		835					840					845			
Val	Leu	Cys	Пе	Gly	Asn	Glu	Asn	Asn	Gln	Arg	Ala	Val	Arg	Glu	His
	850					855					860				
Lys	Gly	Leu	Pro	Tyr	Leu	He	Arg	Phe	Leu	Ser	Ser	Asp	Ser	Asp	Val
865					870					875					880
Leu	Lys	Ala	Val	Ser	Ser	Ala	Ala	He	Ala	Glu	Val	Gly	Arg	Asp	Asn
				885					890					895	
Lys	Glu	He	Gln	Asp	Ala	11e	Ala	Me t	61u	Gly	Ala	11e	Pro	Pro	Leu
			900					905					910		
Val	Ala	Leu	Phe	Lys	G1y	Lys	Gln	He	Ser	Val	Gln	Met	Lys	Gly	Ala
		915					920					925			
Met	Ala	Val	Glu	Ser	Leu	Ala	Ser	His	Asn	Ala	Leu	Ile	G1n	Lys	Ala
	930					935					940				
Phe	Leu	Glu	Lys	Ser	Leu	Thr	Lys	Tyr	Leu	Leu	Lys	Leu	Leu	Lys	Ala
945					950					955					960
Phe	G1n	11e	Asp	Val	Lys	Glu	Gln	Gly	Ala	Val	Ala	Leu	Trp	Ala	Leu
				965					970					975	
Ala	Gly	Gln	Thr	Leu	Lys	Gln	Gln	Lys	Tyr	Met	Ala	Glu	Gln	He	Gly
			980					985					990		
Tyr	Ser	Phe	He	He	Asn	Met	Leu	Leu	Ser	Pro	Ser	Ala	Lys	Met	Gln
		995					1000					1005			
Tyr	Val	Gly	Gly	Glu	Ala	Val	He	Ala	Leu	Ser	Lys	Asp	Ser	Arg	Met
	1010					1015					1020				
His	G1n	Asn	Gln	He	Cys	Glu	Gly	Asn	Gly	lle	Ala	Pro	Leu	Va]	Arg
102	5				1030					1035					1040
Leu	Leu	Arg	Пе	Ser	Thr	11e	Ala	Glu	Gly	Thr	Leu	Leu	Ser	Val	He
				1045					1050					1055	
Arg	Ala	Val	Gly	Ser	11e	Cys	He	Gly	Tyr	Leu	Leu	Lys	Ser	Arg	Leu
			1060					1065					1070		
Cve	Tlo	Acn	The	Pho	Cve	Lou	C. Ln								

1075 1080

<210> 3944

<211> 119

<212> PRT

<213> Homo sapiens

<400> 3944

Met Arg Lys Gly Asn Leu Leu Ser Trp Leu Leu Gly Pro Glu Leu

1 5 10 15

Pro Glu Leu Ser Pro Arg Ala Arg Lys Ala Asp Leu Lys Asp Glu Asn 20 25 30

Leu Lys Phe Ser Cys Trp Trp Glu Pro Arg Lys Thr Ala Gly Val Leu 35 40 45

Thr Trp Pro Phe Leu Ala Glu Leu Ala Glu Val Gly Val Leu Ala Asp 50 55 60

Gly Met Tyr Leu Gly Ala Val Ser Val Ala Gln Gln Arg Cys Arg Ala 65 70 75 80

Asp Trp Leu Ser His Trp Val Leu Pro Ala Gly Ser Pro Leu His Trp 85 90 95

Ala Phe Thr Gln Pro Cys Ser Trp Val Ser Leu Pro Cys Lys Gln Ser 100 105 110

His Asn Asn Thr Arg Ile Val

<210> 3945

<211> 108

<212> PRT

<213> Homo sapiens

<400> 3945

Met Glu Lys Thr Gln Thr 11e Gly Arg Gly Asp Glu His Val 11e 11e

1 5 10 15

Val Thr Thr Cys Leu Glu Ala Thr Arg Met Glu Trp Gly Arg Leu Lys

20 25 Glu Glu 11e Phe Thr Gly Leu Thr Ser His His Ser Ser Arg Val Val 40 Val 11e Thr Pro Glu Gly Lys 11e 11e Ser Val Phe Tyr Gly Leu 11e 50 55 lle Gly Asp Ser Ser Cys Phe Glu Asp Thr Asn Thr Glu Ala Ser Ser 70 75 Arg Thr Tyr Ser Gln Phe Pro Trp Ser Gln Cys Cys Gln Trp Phe Tyr 85 90 95 Lys Gly Leu Met Asn Leu Tyr Leu Val Asp His Lys 100 105

<210> 3946

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3946

Met Gln Ala Ala Ser Leu Arg Ala Gly 11e Leu Gln 11e Val Gly Leu 1 5 10 15

Lys 11e 11e Arg Asn Val Glu Ala Leu Lys Ala Phe Leu Arg Asn Ser 20 25 30

Arg Ala Thr Met Ala His Gln Trp Cys Tyr Gly Ala Met Gly Ala Pro 35 40 45

Gln Phe Gly Leu Ser Tyr Leu Glu Gly Ser Ala Gly His Ser Ala Asn 50 55 60

Thr Pro Ala Phe His IIe Leu Gly Asp His Val Trp Met Ala Leu Met 65 70 75 80

Cys Pro lle Leu Val Glu Glu His Arg Lys Ala Ser Phe Leu His Phe 85 90 95

Lys Glu Ala Arg Glu Thr Cys Glu Val Phe Ser Thr Ser Leu Val His 100 105 110

Pro

<210> 3947 <211> 150 <212> PRT <213> Homo sapiens <400> 3947 Met lle Thr Ser Pro Cys Ser Pro Ala Ala Phe Pro Pro Pro Ser Thr 1 5 10 15 Ser Pro Thr Leu Arg Ala Pro His Leu Pro Ser His Pro Pro Pro Ser 20 25 30 Tyr Leu Phe Leu Tyr Asp Ser Ser Leu Arg Ala Ser Leu Ser Leu Val 40 45 Thr Ser Leu lle Tyr Cys Lys Tyr Arg Lys Val Lys Ser Gly Gln Asn 50 55 60 Arg Gln Arg Ser Ser Trp Leu Ala Ser Asn Asn Ser Tyr Asn Asn Tyr Ser Pro Val Asn Asn Ser Leu Leu Ser Ile Thr Ala Asp Met Phe Ser 85 90 Trp His Phe Gln Ala Tyr Ser Leu IIe Cys Phe Ser Lys Asn Ser IIe 100 105 110 Arg Val Glu Ala Thr Gly Lys Glu 11e Lys Phe 11e Ala Gly Tyr Gln 120 125 Arg Pro Arg Glu Ile Arg Glu Tyr Cys Tyr Cys Tyr Tyr Pro Tyr Tyr 130 135 140 Tyr His Cys Leu Lys Leu

<210> 3948

145

<211> 129

<212> PRT

<213> Homo sapiens

<400> 3948

Met Thr Gln Thr His Ser Leu Arg Ser Val Phe Val Phe Gln Arg Tyr

10 Val Cys Ile Ser Pro Thr Leu Arg Phe Met Val Thr Gln Ser Arg Gly 25 Phe Ser Leu Ala Leu Pro Thr Ala Glu Thr Cys Ser Phe Leu Ala Arg 35 45 40 Tyr Pro Gln Gly Pro Ala Ala Gly Gly Gly Thr Ser Gln Ser Gly Trp 55 60 Gly Pro Pro Ser Gly Gln Asn Ile Ile Leu Trp Lys Lys Val Phe Ser 70 75 65 80 Asn Ala Phe Leu Arg Gln Asp Leu Val Leu Ser Pro Arg Val Gly Ser 85 90 Ala Val Val Gln Leu Arg Gly Asn Ser Met Leu Ala Val Leu Thr Ala 105 110 Leu Ala Arg Ser Arg Arg Leu Leu Cys Leu Gly Ser Tyr Phe Gly Gly 115 120 125 Thr

<210> 3949

<211> 122

<212> PRT

<213> Homo sapiens

<400> 3949

Met Ala Glu Gly His Gly Phe Leu Lys Asp His Cys Gly Cys Cys Val
1 5 10 15

Asn Arg Gly Thr Ser Asp Glu Gln Asn Gln Ala Leu Asn Cys Glu Met $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Thr Ala Glu Met Cys Lys Arg Ala Arg Trp Cys Leu Asp Leu Leu Val 35 40 45

Ala Ala Glu Ser Val Arg Asn Gly Trp Arg Pro Val Cys Val Gln Met 50 55 60

Glu Pro Asn Glu Leu Pro Trp Glu Gly Trp Val Gly Cys Ser Arg Val 65 70 75 80

Gly Arg Glu Glu Leu Gly Asn Leu Glu Asp Ser Ser Leu Ser Asn Trp

Ala Glu Gly Asp Val Ile Phe Leu Lys Thr Arg Glu Lys Trp Ala Trp Glu Gly Lys Phe Asp Leu Arg His Ala Asn <210> 3950 <211> 257 <212> PRT <213> Homo sapiens <400> 3950 Met His Ala Lys Tle Trp Leu Met Lys Thr Ser Leu Arg Ser Gly Arg Ala Ala Leu Arg Glu Leu Arg Ser Arg Glu Asn Phe Leu Ser Lys Leu Asn Arg Glu Leu lle Glu Thr lle Gln Glu Met Glu Asn Ser Thr Thr Leu His Val Arg Ala Leu Leu Gln Gln Gln Asp Thr Leu Ala Thr Ile lle Asp lle Leu Glu Tyr Ser Asn Lys Lys Arg Leu Gln Gln Leu Lys Ser Glu Leu Gln Glu Trp Glu Glu Lys Lys Lys Cys Lys Met Ser Tyr Leu Glu Gln Gln Ala Glu Gln Leu Asn Ala Lys Ile Glu Lys Thr Gln Glu Glu Val Asn Phe Leu Ser Thr Tyr Met Asp His Glu Tyr Ser 11e Lys Ser Val Gln Ile Ser Thr Leu Met Arg Gln Leu Gln Gln Val Lys Asp Ser Gln Gln Asp Glu Leu Asp Asp Leu Gly Glu Met Arg Arg Lys Val Leu Glu Ser Leu Ser Asp Lys 11e Gln Lys Lys Lys Lys 11e

Leu Ser Ser Val Val Ala Val Ser Ser Gln Leu Leu Cys Gly Ser Gly

180 185 190 Asp Pro Gly Leu Thr Pro Thr Pro Pro Ser Ser Pro Ser Ser Ala Ser 200 205 Arg Pro Thr Ala Ala Pro Ser Val Ser Thr Met Phe Cys Cys Pro Gly 210 215 220 Arg Gly Thr Trp Gly Pro Asp Leu Phe Phe Leu His Arg Lys Pro Ser 230 235 Val Pro Met Lys Arg Leu Ser Tyr Arg Arg Cys Gly Glu Ala Arg Thr 250 245 Ser

<210> 3951

<211> 143

<212> PRT

<213> Homo sapiens

<400> 3951

Met Thr Ser Ala Lys Thr Leu Arg Gly Arg His Ser Ser Thr Lys Thr 5 10 Leu Phe Pro Ser Glu Val Pro Phe Thr Gly Thr Gly Val Arg Thr Ser 20 25 Pro Cys Leu Leu Gly Ala 11e Pro Phe Asn Leu Gln Gln Pro Leu Val 35 40 45 Ser Val His Asn Ala Asn Glu Val Arg Val Ala Ser Pro Gln Ala Asn Asn Phe Pro Gln Ile Ala Ala Arg Cys Gly Pro Ala Lys Ser Gln Gly 70 75 Ala Ala Ile Ser Lys Gln Ser Pro Pro Val Leu Glu Gly Val Cys Arg 85 90 Asp Ala Ser Gly Glu Arg Pro Gly Pro Gly Ala Gly Leu Gln Leu Trp 105 Asp Lys Leu Leu Ser Gly Pro Gly Ala Thr Gln Arg Arg Gln Ala Ala 115 120

Val Gln Val Lys Pro Ile Gln His Leu Ala Pro Čys Leu Gln Ala

130 135 140

⟨210⟩ 3952

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3952

Met Ser His Cys Pro Arg Ala Cys Lys Leu Phe Phe Asn Phe Ser Ser

1 5 10 15

Trp Thr Ser Leu Cys Cys Gly Ser Pro Ser Val Ser Leu Ala Ser His
20 25 30

Ser Gln Thr Gly Lys Ala Arg Ser Phe Ser Ser Leu Ala Phe Ser Ser 40 45

Ser Ile Ser Phe Leu Leu Gly His Ser Ser Val Leu Ile Tyr Ser Gly
50 55 60

Phe Phe Leu Phe Lys Asn Leu Phe His Ser Tyr Val Ser Cys Gly Leu 65 70 75 80

Asp Glu 11e Leu His Asp Phe 11e Gln Ser His Gly Thr Arg Leu Leu 85 90 95

Glu Ser Ser Glu 11e Cys Leu Phe 11e Asn Pro Leu Gln Trp Asp Ser 100 105 110

His

<210> 3953

<211> 166

<212> PRT

<213> Homo sapiens

<400> 3953

Met Glu Gly Thr Tyr 11e Thr Ser Glu His Ser Tyr Gln Lys Pro Gln
1 5 10 15

Ser Phe Gly Gln Asp Cys Lys Ser Leu Ala Asp Pro Gly Ser Ser Asp

			20					25					30		
Asp	Asp	Asp	Val	Ser	Ser	Leu	Glu	Glu	Glu	Gln	Glu	Phe	His	Met	Arg
		35					40					45			
Ser	Lys	Asn	Ser	Leu	Gln	Tyr	Ser	Ala	Lys	Glu	His	Gly	Met	Pro	Glu
	50					55					60				
Lys	Asn	Pro	Ala	Glu	Gly	Asn	Thr	Val	Phe	Val	Tyr	Asn	Asp	Lys	Lys
65					70					75					80
Gly	Thr	Glu	Asp	Pro	Gly	Asp	Ser	His	Leu	Gln	Trp	Gln	Leu	Asn	Leu
				85					90					95	
Leu	Thr	His	He	Glu	Asn	Val	Gln	Asn	Glu	Val	Thr	Ser	Arg	Met	Asp
			100					105					110		
Leu	He	Glu	Lys	Glu	Val	Asp	Val	Leu	Glu	Ser	Trp	Leu	Asp	Phe	Thr
		115					120					125			
Gly	Glu	Leu	Glu	Pro	Pro	Asp	Pro	Leu	Ala	Arg	Leu	Pro	Gln	Leu	Lys
	130					135					140				
Arg	His	He	Lys	Gln	Leu	Leu	11e	Asp	Met	Gly	Lys	Val	Gln	Gln	He
145					150					155					160
Ala	Thr	Leu	Cys	Ser	Val										
				165											
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<21.	1> 13	17													
<212	2> PI	RT													
<213	3> He	omo s	sapi	ens											
<400)> 39	954													
Met	Lys	Lys	Val	Lys	Lys	Lys	Arg	Ser	Glu	Ala	Arg	Arg	His	Arg	Asp
1				5					10					15	
Ser	Thr	Ser	GIn	His	Ala	Ser	Ser	Asn	Ser	Thr	Ser	Gln	Gln	Pro	Ser
			20					25					30		
Pro	Glu	Ser	Thr	Pro	Gln	Gln	Pro	Ser	Pro	Glu	Ser	Thr	Pro	Gln	His
		35					40					45			
Ser	Ser	Leu	G1u	Thr	Thr	Ser	Arg	Gln	Pro	Ala	Phe	Gln	Ala	Leu	Pro

Ala Pro Glu Ile Arg Arg Ser Ser Cys Cys Leu Leu Ser Pro Asp Ala

Asn Val Lys Ala Ala Pro Gln Ser Arg Lys Ala Gly Gly Leu Ser Ser Ser Phe Ser Ser Ser Ser Leu Pro Ala Asp Gly Val Leu Gly His Pro Lys Gly Trp Phe Leu <210> 3955 <211> 189 <212> PRT <213> Homo sapiens <400> 3955 Met Phe Gly Ser Ser Arg Gly Gly Val Arg Gly Gln Asp Gln Phe Asn Trp Glu Asp Val Lys Thr Asp Lys Gln Arg Glu Asn Tyr Leu Gly Asn Ser Leu Met Ala Pro Val Gly Arg Trp Gln Lys Gly Arg Asp Leu Thr Trp Tyr Ala Lys Gly Arg Ala Pro Cys Ala Gly Pro Ser Arg Glu Glu Glu Leu Ala Ala Val Arg Glu Ala Glu Arg Glu Ala Leu Leu Ala Ala Leu Gly Tyr Lys Asn Val Lys Lys Gln Pro Thr Gly Leu Ser Lys Glu Asp Phe Ala Glu Val Cys Lys Arg Glu Gly Gly Asp Pro Glu Glu Lys Gly Val Asp Arg Leu Leu Gly Leu Gly Ser Ala Ser Gly Ser Val

Gly Arg Val Ala Met Ser Arg Glu Asp Lys Glu Ala Ala Lys Leu Gly

Leu Ser Val Phe Thr His His Arg Val Glu Ser Gly Gly Pro Gly Thr

145 150 155 160 Ser Ala Ala Ser Ala Arg Arg Lys Pro Arg Ala Glu Asp Gln Thr Glu 165 170 Ser Arg Gly Val Ser Arg Val Thr Leu Glu Glu Arg Ser 180 185 <210> 3956 <211> 968 <212> PRT <213> Homo sapiens <400> 3956 Met Glu Val Thr Gly His Leu Pro Pro Leu Asn Glu Thr Ala Asn Phe lle Ser Asn Ser Lys lle Lys Thr Ser Asp Thr Thr Gln Lys Asn Ser 25 Phe Gln Ser His Ile Asn Ser Val Ala Asn Asp Ile Val Glu Ser Val 35 40 45 Leu Gly Lys Met Tyr Leu Val Val Val Thr Ser Leu Tyr Glu Asn Asn 60 55 Lys Ser Arg Thr Glu Val Glu Ile Ser Asp His Asn Asp Ser Leu Leu 70 75 Met Lys Pro Leu Arg Phe Arg Glu Thr Lys Gln Ala Gly Lys Ile Ser Asn Ser Pro Arg Tyr Ala lle Ser Gln Ala Tyr Ser Tyr Val Asp Ser 105 Gln Asn lle Ser Val Met Glu Asn Thr Leu Leu Pro Tyr Leu Pro Leu 115 120 125 Gln Val Lys Lys Asp Leu Ile Gln Met Val Leu Asn Lys Ile Thr Asn 130 135 Phe Val Ser Leu Pro Leu Lys Val Ser Pro Lys Asp Asn Pro Lys Pro 150 155 Cys Phe Lys Ala His Leu Lys Thr Arg Ser Lys Ile Thr Thr Leu Pro

170

Lys Phe Thr Lys Lys Thr His Leu Gly Leu Ser Ala Ala Lys Ala Lys

175

			180					185					190		
Ser	Lys	Thr	Lys	Leu	Gly	Pro	Gly	Glu	Lys	Thr	Leu	Lys	Asp	Ser	Arg
		195					200					205			
Ser	Lys	Thr	Ala	He	Gly	Leu	Ser	His	He	Met	Ser	Ala	Gly	Asp	Ala
	210					215					220				
Lys	Asn	Leu	Leu	Asp	Thr	Lys	Leu	Pro	Thr	Ser	Glu	Leu	Lys	11e	Tyr
225					230					235					240
Ala	Lys	Asp	He	Ile	lle	Asn	Пe	Leu	Glu	Thr	He	Val	Lys	Glu	Phe
				245					250					255	
Gly	Lys	Val	Lys	Gln	Thr	Lys	Ala	Leu	Pro	Ser	Asp	Gln	Ile	Ile	Ala
			260					265					270		
Ala	Gly	Lys	He	Val	Asn	Thr	Val	Leu	Gln	Glu	Leu	Tyr	Val	Thr	Asn
		275					280					285			
Asn	Cys	Asn	Leu	Ala	Tyr	Pro	Met	Lys	Ser	Ser	His	Leu	Arg	Leu	Ser
	290					295					300				
Gln	Gly	Asn	He	Gly	11e	Gly	Ser	Leu	Pro	Lys	Gln	Gln	Ala	Cys	Phe
305					310					315					320
Tyr	Leu	Glu	Asn	Val	Ser	Ser	Gln	Leu	Glu	His	He	Phe	Pro	Arg	Glu
				325					330					335	
Gly	He	Phe	Lys	Lys	Leu	Phe	Asp	Lys	Trp	GIn	Thr	Glu	Ser	Asn	Asp
			340					345					350		
Lys	Glu	Asn	Glu	Lys	Cys	Lys	Leu	Leu	Met	He	Ala	Glu	Asn	Val	Leu
		355					360					365			
Thr		He	Ser	He	Lys		Lys	Glu	Leu	Glu	Tyr	Ser	Leu	Ser	Leu
	370					375					380				
	Asn	Leu	Pro	Pro		G]u	Asn	Cys	Glu	Ser	Arg	Leu	Tyr	Asn	
385	0.1	0.1		•	390					395					400
Phe	Glu	Gly	Ala		Thr	Arg	Ala	Glu		Thr	Lys	Ala	GIn		Asn
	DI	6.1		405			0.1		410		0.1			415	
Met	Phe	GIy	Arg	61u	11e	Val	61u		Leu	Leu	Glu	Lys		GIn	Leu
C···	101 .	1	420	C1.	11	D	TI	425		C	C1	C1	430	,	C
Cys	rne		Ser	GIN	11e	rro		Pro	Asp	Ser	61u		Inr	Leu	Ser
A	Care	435	C1	111:	11.	TL	440	1	C	1	Т	445	DI.	D	
ASH	5er 450	LyS	Glu	fi1S	116	1nr 455	W1 8	LYS	ser	Lys		01 À	rne	1.1.0	ASN
Lvc		Ser	Leu	Ser	Ser		Dro	Ha	Tyr	Acn	460 Thr	lve	Thr	Lvc	Acr

465					470					475					480
Gln	Ile	Ser	Val	Gly	Ser	Ser	Asn	GIn	He	Va]	Gln	Glu	He	Val	Glu
				485					490					495	
Thr	Val	Leu	Asn	Met	Leu	Glu	Ser	Phe	Val	Asp	Leu	Gln	Phe	Lys	His
			500					505					510		
Пе	Ser	Lys	Tyr	Glu	Phe	Ser	Glu	He	Val	Lys	Met	Pro	lle	Glu	Asn
		515					520					525			
Leu	Ser	Ser	lle	Gln	Gln	Lys	Leu	Leu	Asn	Lys	Lys	Met	Leu	Pro	Lys
	530					535					540				
Leu	Gln	Pro	Leu	Lys	Met	Phe	Ser	Asp	Lys	Ser	Glu	Ser	Asn	Thr	He
545					550					555					560
Asn	Phe	Lys	Glu	Asn	He	Gln	Asn	lle	Leu	Leu	Arg	Va]	His	Ser	Phe
				565					570					575	
His	Ser	Gln	Leu	Leu	Thr	Tyr	Ala	Val	Asn	He	He	Ser	Asp	Met	Leu
			580					585					590		
Ala	Val	He	Lys	Asn	Lys	Leu	Asp	Asn	Glu	He	Ser	Gln	Met	Glu	Pro
		595					600					605			
Ser	Ser	He	Ser	He	Leu	Lys	Glu	Asn	He	Val	Ala	Ser	Glu	He	He
	610					615					620				
Gly	Thr	Leu	Met	Asp	Gln	Cys	Thr	Tyr	Phe	Asn	Glu	Ser	Leu	He	Gln
625					630					635					640
Asn	Leu	Ser	Arg	Glu	Ser	Leu	Phe	Gln	Gly	Ala	Glu	Asn	Ala	Tyr	Thr
				645					650					655	
Val	Asn	Gln	Val	Glu	Leu	Ala	Thr	Asn	Met	Lys	Met	Phe	Thr	Ser	Lys
			660					665					670		
Leu	Lys	Glu	Gly	Ser	Leu	Gly	He	Asn	Pro	Ser	Gln	Val	Ser	Lys	Thr
		675					680					685			
Gly	Phe	Val	Phe	Cys	Ser	Asp	Glu	Asp	Met	Lys	Glu	Lys	Tyr	Arg	Va]
	690					695					700				
Ser	Ser	Asp	Leu	Pro	Thr	Ser	Val	Arg	Ser	Ser	Val	Glu	Asp	Thr	Val
705					710					715					720
Lys	Asn	Ser	Glu	Pro	Thr	Lys	Arg	Pro	Asp	Ser	Glu	Thr	Met	Pro	Ser
				725					730					735	
Cys	Ser	Thr	Arg	Asn	Lys	Val	Gln	Asp	His	Arg	Pro	Arg	Glu	Ser	Asn
			740					745					750		
Phe	Glv	Ser	Phe	Asn	Gln	Thr	Met	lve	Glv	Asn	Ser	Tvr	Len	Pro	Glu

		755					760					765			
Gly	Ser	Phe	Leu	Gln	Lys	Leu	Leu	Arg	Lys	Ala	Ser	Asp	Ser	Thr	Glu
	770					775					780				
Ala	Ala	Leu	Lys	Gln	Val	Leu	Ser	Phe	lle	Glu	Met	Gly	Lys	Gly	Glu
785					790					795					800
Asn	Leu	Arg	Va]	Phe	His	Tyr	Glu	Asn	Leu	Lys	Pro	Val	Val	Glu	Pro
				805					810					815	
Asn	Gln	He	Gln	Th.r	Thr	He	Ser	Pro	Leu	Lys	lle	Cys	Leu	Ala	Ala
			820					825					830		
Glu	Asn	He	Val	Asn	Thr	Val	Leu	Ser	Ser	Cys	Gly	Phe	Pro	Ser	Gln
		835					840					845			
Pro	His	Thr	Asn	G1u	Asn	Arg	Glu	He	Met	Lys	Pro	Phe	Phe	He	Ser
	850					855					860				
Lys	Gln	Ser	Ser	Leu	Ser	Glu	Val	Ser	Gly	G1 y	Gln	Lys	Asp	Asn	Glu
865					870					875					880
Lys	Ser	Leu	Leu	Arg	Met	G]n	Asp	Lys	Lys	He	Λsn	Tyr	lle	Pro	Glu
				885					890					895	
Glu	Glu	Asn	Glu	Asn	Leu	Glu	Ala	Ser	Arg	Glu	Asp	Ser	Ser	Phe	Leu
			900					905					910		
Gln	Lys	Leu	Lys	Lys	Lys	Glu	Tyr	Pro	Lys	He	Glu	Thr	Val	Lys	Glu
		915					920					925			
Val	G1u	Ala	Phe	Thr	Phe	Ala	Asp	His	Glu	Met	G1 y	Ser	Asn	Glu	Val
	930					935					940				
His	Leu	He	Ala	Arg	His	Val	Thr	Thir	Ser	Val	Val	Thr	Tyr	Leu	Lys
945					950					955					960
Asn	Phe	Glu	Thr	Thr	Gly	Arg	Cys								
				965											

<210> 3957

<211> 180

<212> PRT

<213> Homo sapiens

<400> 3957

Met Ala Ser Leu Ser Gly Pro Pro Cys Ala Ser Thr Leu Gln Pro Met

10 Ser Ala Thr His Ser Arg Gly Pro Trp Thr Trp Pro Pro Ala Gly Ala 25 Val Leu Ser Asp Pro Ser Phe Ser Leu Ser Pro Phe Ser Ala Ala Ser 35 40 Ser Ser Pro Gly Ser lle Leu Ser Leu Asn Ser Met Thr Gln Leu Pro 55 60 Pro Leu Ser Pro Lys Ser Arg Leu Leu Leu Trp Pro Phe Pro Leu Ser 70 65 75 80 Leu Lys Pro Ala Ser Val Trp Thr Gln Leu Leu Pro Ser Pro His Ser 85 90 Arg Arg Gly Cys Ser Ala Leu Leu Glu Arg Pro Pro Pro Leu Asn Ser 105 110 Ala His Gln Thr Ser Thr 11e Gln Pro Leu Arg Gly Pro Gln Ser Tyr 115 120 125 Leu Ala Ile Gly Leu Leu Ala Pro Asn His Leu Pro Leu Pro Ser Ser 135 Ser Ser Ser Ser Leu His His Phe Leu 11e Thr Ser Asp Leu Ser Ser 145 150 155 160 Ser Ala Glu Asp Leu Ser Pro Ser Val Tyr Thr Glu Trp Pro Leu Ala 165 170 175 Glu Asn Pro Pro 180

<210> 3958

<211> 161

<212> PRT

<213> Homo sapiens

<400> 3958

Met Glu Val Thr Leu Leu Val Lys Gly Glu Pro Pro Pro Cys His His

1 5 10 15

Asp Ser Ser Gly Pro Gly His Cys Pro Gln Phe Gln Gly Lys Lys Gln
20 25 30

Met Ser Gly Ala Arg Ala Arg Ala Gln His Gln Ala His Ser Ser Gln

35 40 45 Glu Ser Thr Gln Cys Gln Val Ser Pro Cys Pro Ala Trp His Pro Arg 50 55 60 Ala Gly Cys Ser Ser His Gly Thr Asp Gly Asn Ala Lys Ala His Arg 70 6575 Glu Ala Leu Ala Pro His Cys Pro Val Pro Pro Pro Pro His Ala Pro 90 85 Glu Arg Pro Gly Pro Cys Leu Gln Ala Pro Ala Ser Ala Pro Arg Arg 100 105 110 Glu Ala Cys Pro Ala Thr Leu Val Leu Lys Ser His Pro Trp Leu Pro 120 125 Val Pro Gly Lys Gln Val Gly Ser Thr Lys Pro Arg Val Pro Ala Thr 140 135 Leu Cys Thr Asp Ala Asp Phe Leu Cys Thr Leu Gly Cys Leu Leu Pro 145 150 155 160 His

<210> 3959

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3959

Met Pro Ser Ser Ile Asp Ile Ile Asp Gly Thr Lys Glu Lys Lys Thr
1 5 10 15

Lys Leu Asp Gly Gly Ser Ala Ser Leu Leu Arg Leu Gln Glu Glu Leu 20 25 30

Ser Leu Pro Gln Thr Glu Val Leu Glu Phe Gly Val Pro Leu Leu Arg
35 40 45

Ala Ala Ala Trp Glu Leu Trp Pro Lys Glu Gln Gln Ile Ala Leu His 50 55 60

Leu Glu Cys Ala Cys Phe Leu Gln Val Leu Ala Cys Arg Cys Gly Ser 65 70 75 80

 Cys
 His
 Gly
 Asp
 Phe
 Val
 Pro
 Phe
 His
 His
 Phe
 Ala
 Val
 Cys
 Ser

 Thr
 Lys
 Asn
 Ser
 Lys
 Gly
 Thr
 Ser
 Arg
 Phe
 Cys
 Thr
 Tyr
 Arg
 Asp
 Thr

 Gly
 Ser
 Val
 Leu
 Thr
 Gln
 Val
 Ile
 Thr
 Glu
 Lys
 Leu
 Gln
 Leu
 Pro
 Ser

 Pro
 Gln
 Glu
 Gln
 Arg
 Lys
 Ser
 Ser
 Ile
 I

<210> 3960

<211> 193

<212> PRT

<213> Homo sapiens

<400> 3960

Met Thr Asn Ser Thr Val Pro Asp Val Leu Cys Ile Gly Pro Pro Glu

1 5 10 15

Tyr Gln Glu Lys Lys Leu Asn Asp Val Thr Ser Phe Asp Tyr Glu Cys

20 25 30

Thr Thr Asp Phe Val Val His Gln Thr Leu Pro Tyr Gln Ser Val
35 40 45

Ser Val Asp Thr Phe Asn Ser Lys Asn Asp Val Tyr Val Ala lle Ala 50 55 60

Gln Pro Ser Met Glu Asn Cys Met Val Leu Glu Trp Asp His Ile Glu
65 70 75 80

Met Asn Phe Arg Ser Tyr Asp Asn 11e Thr Gly Gln Ser 11e Val Gly
85 90 95

Cys Lys Ala IIe Leu IIe Asp Asp Gln Val Phe Val Val Ala Gln 100 105 110

Leu Phe Gly Gly Ser His 11e Tyr Lys Tyr Asp Glu Ser Trp Thr Lys
115 120 125

Phe Val Lys Phe Gln Asp IIe Glu Val Ser Arg IIe Ser Lys Pro Asn 130 135 140

Asp Ile Glu Leu Phe Gln Ile Asp Asp Glu Thr Phe Phe Val Ile Ala 145 150 155 160 Asp Ser Ser Lys Ala Gly Leu Ser Thr Val Tyr Lys Trp Asn Ser Lys

165 170 175

Gly Phe Tyr Ser Tyr Gln Pro Leu Pro Gly Pro His His Pro Pro Val

180 185 190

<210> 3961

<211> 267

<212> PRT

<213> Homo sapiens

<400> 3961

Met Val Arg Gly Ala Gly Pro Gly Pro Ser Leu Ser Ala Leu Ser His

1 5 10 15

Pro Thr Gly Ala Ser Gly Met Ala Ala Glu Gly Pro Gly Tyr Leu 20 25 30

Val Ser Pro Gln Ala Glu Lys His Arg Arg Ala Arg Asn Trp Thr Asp 35 40 45

Ala Glu Met Arg Gly Leu Met Leu Val Trp Glu Glu Phe Phe Asp Gly
50 55 60

Leu Lys Gln Thr Lys Arg Asn Ala Lys Val Tyr Glu Lys Met Ala Ser 65 70 75 80

Lys Leu Phe Glu Met Thr Gly Glu Arg Arg Leu Gly Glu Glu He Lys

85

90

95

lle Lys Ile Thr Asn Met Thr Phe Gln Tyr Arg Lys Leu Lys Cys Met
100 105 110

Thr Asp Ser Glu Ser Ala Pro Pro Asp Trp Pro Tyr Tyr Leu Ala IIe 115 120 125

Asp Gly 11e Leu Ala Lys Val Pro Glu Ser Cys Asp Gly Lys Leu Pro
130 135 140

Asp Ser Gln Pro Pro Gly Pro Ser Thr Ser Gln Thr Glu Ala Ser Leu 145 150 155 160

Ser Pro Pro Ala Lys Ser Thr Pro Leu Tyr Phe Pro Tyr Asn Gln Cys

165 170 175

Ser Tyr Glu Gly Arg Phe Glu Asp Asp Arg Ser Asp Ser Ser Ser Leu Leu Ser Leu Lys Phe Arg Ser Glu Glu Arg Pro Val Lys Lys Arg Lys Val Gln Ser Cys His Leu Gln Lys Lys Gln Leu Arg Leu Leu Glu Ala Met Val Glu Glu Gln Arg Arg Leu Ser Arg Ala Val Glu Glu Thr Cys Arg Glu lle Ser Arg Cys Tyr Ser Thr Val Cys Arg Arg Gly Cys Pro Val Ala Met Glu Trp Leu Trp Thr Leu Ser

<210> 3962

<211> 238

<212> PRT

<213> Homo sapiens

<400> 3962

Met Pro Gly Arg Thr Gly Leu Ala Gly Glu Met Pro Val Gly Trp Gly Pro Gly Arg Ala Gly Ala Ser Glu Pro Asn Glu Ser Thr Cys Ala Pro Glu Ala Leu Asp Gly His Leu Gly Val Ala Arg Arg Glu Gly Pro Ile Leu Gly Thr Leu Leu Gly Arg Gly Lys Gly His Cys Gln Ala Leu Ser Gln Leu Gly His Cys Pro Ser Pro Ala Trp Asn Asn Tyr Ser Gly Met Met Asp Ile Gly Val Ala Pro Ser Arg Val Gly Pro Ser Gly His Cys Gly Val Leu Arg Ser His Ser Arg Pro Gly Glu Leu Ala Val Val Met Asn His Lys Val Pro Arg His Arg Pro Val Ser Ser Val Gly Thr Glu

Gly Ala Cys Lys Arg Ala Gln Arg Lys Glu Gly Glu Gly Pro Arg Gly

195

200

205

Pro Cys Val Val Arg Ala Gly Gly Val Gly Trp Gly Thr Arg Gln Val

210

215

220

Ala Gly Glu Pro Pro Leu Val Asp Cys Ser Thr Ala Gly Thr

225

230

235

<210> 3963 <211> 151

<212> PRT

<213> Homo sapiens

<400> 3963

Met Arg Met Ala Pro Thr Glu Ser Thr Glu Gly Arg Arg Leu Trp Pro 1 5 10 15 Gly Pro Arg Glu Gly Gly Ser Gly Lys Glu Thr Thr Ser Glu Lys Leu 25 Ser Asn Leu Pro Arg Pro His Ser Tyr Ser Pro Lys Arg Ala Asp Ala 35 40 45 Glu Ser Phe Arg Gly Val Pro Ala Ala Phe Lys Lys Cys Arg Glu Val 50 55 Phe Arg Ala Cys Trp Gly Ser Arg Glu Leu Leu Phe Leu Phe Lys Ala 70 75 lle Ser Glu Ala Gly Pro Ala Gln Asn Ser Cys Gly lle Thr Leu Glu 85 90 95

Lys Ala Gly Gly Leu Glu Asp Thr Glv Ser His Trp Leu Ser Trp Ala

100 105 110 Arg Cys Lys Val Leu Tyr lle Asn Gly Phe Thr Asp Pro Trp Lys Asp 115 120 125 Ala Gln Ala Trp Ile Leu Ile Val Ser Cys Lys Lys Gly Lys Gly Thr 130 135 140 Pro Glu Arg Glu Gly Arg Asn 145 150 <210> 3964 <211> 119 <212> PRT <213> Homo sapiens <400> 3964 Met Pro Trp Gly Gly Val Gly Ala Gln Pro Pro Leu Phe Tyr Leu Leu 10 Gly Lys Gly Leu Gln Trp Gly Leu Glu Tyr Arg Gly Phe His Gly Ser 20 25 30 Pro Gly Asp Pro Glu His Phe Tyr Ser Phe Tyr Gln Asp Lys Glu Gly 40 45 Leu Cys Ile Arg Leu Ser Thr Leu Asn Trp Phe Leu Trp Cys Phe Ile 55 Asp Glu lle Arg Met His Arg Arg Pro Gln Ala Arg Tyr Leu Leu Ser 65 70 75 Pro Gln Cys Ser Ala Pro Pro Ala Gln Gly Ser Gly Phe Pro Arg Arg 90 Thr Gln Leu Thr Pro Thr Pro Gln Glu Ala Gln Ala Gly Leu Cys Arg 100 105 110 Ala His Lys Pro Gly Pro Val

<210> 3965

115

<211> 101

<212> PRT

<213> Homo sapiens

<400> 3965

Met Arg Phe Pro Ser Pro Gly Pro Val Lys Asn Val Asp Gly Asp Trp

1 5 10 15

Thr Thr Val Lys Met Gln Val Tyr Gln Asp Ala Pro Ser Thr Thr Leu 20 25 30

Cys Ala Gly Pro Gly Pro Thr Tyr Leu Gln Pro Leu Ala Val Leu Arg 35 40 45

Gly Arg Cys His Pro Ser Cys Leu Gln Arg Ser Arg His Ser Gln Leu 50 55 60

Arg Arg Thr Val Ala Glu Gln Ile Leu His Leu Phe Thr Gly Val Leu 65 70 75 80

His Arg Asn Ala IIe Phe Leu Leu Val Ser Val Ala Ser His Ser Glu 85 90 95

Val Arg Arg Gly Asp

100

<210> 3966

<211> 1197

<212> PRT

<213> Homo sapiens

<400> 3966

Met Ser Asp Glu Asn Met Ser Lys Thr Gln Thr Val Tyr Asp Ser Asp

1 5 10 15

Ser Gln Ser Gly Ser Ser Ala Lys Glu Lys Asp Arg Gly Ala Asn Leu 20 25 30

Cys Val Met Asp His Phe Met Lys 11e Phe Leu Tyr Cys Arg Arg Ala 35 40 45

Met Val Leu Ala His Arg Gly Gly Tyr Trp Thr Leu Leu Gln Asn Cys 50 55 60

Cys Arg Ala Leu Trp Asn Phe Thr Gln Glu Leu Gln 11e Leu Leu Lys 65 70 75 80

Gln Ala Val Asp Leu Asp Lys Thr Phe Pro Ile Ser Gln Asp Gly Phe

				85					90					95	
Phe	Cys	Thr	Ser	Val	Leu	Pro	Phe	Tyr	Leu	Gly	Ala	Glu	Leu	Leu	He
			100					105					110		
Asp	Met	Leu	He	Gln	Leu	Gln	Asn	Thr	Ser	Ser	He	Lys	Pro	He	Glu
		115					120					125			
Asp	Lys	Gly	Glu	Phe	Ser	Val	Pro	Ser	Cys	Tyr	Gly	Asn	Пе	Lys	Asn
	130					135					140				
Asp	Asn	Gly	Gly	Ser	Ser	Leu	Thr	Phe	Glu	His	Pro	Leu	Asp	Asp	Val
145					150					155					160
Asn	Val	Val	Asp	Leu	Lys	Trp	He	His	Asp	Phe	Val	Leu	Lys	Ser	Leu
				165					170					175	
Glu	Val	Leu	Tyr	Gln	Val	Glu	Lys	Trp	Glu	Thr	Leu	Val	Ser	Leu	Ala
			180					185					190		
Пе	Gln	Phe	Asn	Thr	Val	Ser	His	Glu	Arg	Tyr	Thr	G]u	Gln	Val	Thr
		195					200					205			
Pro	Leu	Leu	Val	Tyr	Ala	Gln	Arg	Gln	Leu	Leu	Leu	Arg	He	Gln	Lys
	210					215					220				
Phe	Lys	Gly	Pro	Asp	He	Thr	Gln	Gln	Pro	Cys	Ala	Arg	Tyr	Glu	Ala
225					230					235					240
Glu	Tyr	Gly	Glu	Lys	He	Thr	Cys	Arg	Asn	Phe	lle	G1 y	Lys	G1n	Leu
				245					250					255	
Lys	He	Asn	Ser	Ser	Thr	He	Glu	Ala	Thr	Ser	Asn	Cys	Thr	Asp	Leu
			260					265					270		
Leu	Lys		Leu	He	Ser	Ser		Tyr	Ser	Arg	Ala	Lys	Ala	Leu	Val
		275					280					285			
Cys		Pro	Val	Asp	Va]		Asp	Thr	Leu	Arg	-	Phe	Arg	Glu	Thr
	290					295					300				
	Glu	Lys	Ser	Lys		His	Asn	Arg	Ser	He	Arg	His	Ser	Arg	
305					310					315					320
Leu	Leu	Ser	Leu		Leu	Ala	Gln	Thr		Asp	Val	Leu	GIn		Ser
				325					330					335	
Asn	GIn	Arg		Leu	Lys	Val	GIn		Leu	His	Ser	Leu		Ser	Leu
		Di	340	6.3				345		131		0	350	•	0.7
Leu	11e		Ма	61u	Lys	Lys		Ala	Ala	Phe	Lys		Trp	Cys	61n
A 1 ·	1	355	Δ.	7.1	ומ	Α.	360	D		17 3		365	TI	т.	,
ATA.	Len	ASD	ASD	LIE	rne	Arg	LVS	Pro	Asn	Val	Leu	HIS	inr	Ern	IVS

	370					375					380				
Glu	Phe	Gly	Pro	Ser	Leu	Thr	Asn	Val	Thr	Asn	Ser	His	Ser	Pro	Pro
385					390					395					400
Gly	Phe	Lys	Asp	Tyr	Ser	Glu	Glu	Phe	Leu	Ser	Arg	Val	Gly	He	Trp
				405					410					415	
Gly	Cys	Leu	Gln	G1 y	Ala	Val	He	Ser	Ala	Lys	He	Ala	Gln	Phe	lle
			420					425					430		
Lys	Ser	Leu	Asn	Val	Glu	Lys	Lys	Thr	Asp	Cys	Cys	He	Leu	Ser	Ala
		435					440					445			
Leu	Leu	Phe	Gln	Gly	Leu	Leu	Arg	Thr	Thr	Leu	Pro	His	Pro	Lys	Ala
	450					455					460				
Glu	Arg	Cys	Tyr	Ala	Gln	Tyr	Glu	He	Thr	Gln	Leu	Leu	Pro	Gly	11e
465					470					475					480
Glu	Leu	Phe	Ser	Asp	Arg	Tyr	Arg	Ala	Asp	11e	Cys	Ser	Val	lle	Ala
				485					490					495	
Ser	Leu	Tyr	Tyr	Пe	Ile	Arg	Glu	Leu	His	Phe	Val	Arg	Gln	Asn	Leu
			500					505					510		
Ile	Val	Leu	Pro	Leu	Leu	Ala	Leu	Tyr	Gln	Tyr	Phe	Val	Ser	Gly	He
		515					520					525			
Cys	Gln	Asp	lle	Thr	Arg	Asn	Leu	Glu	Ala	Arg	He	Leu	Lys	lle	Glu
	530					535					540				
Val	Leu	He	Asp	Leu	Arg	Phe	Phe	Ser	Glu	Ala	Phe	Tyr	Glu	He	Ser
545					550					555					560
Gln	Пе	Phe	Tyr	Gly	Lys	Asn	Met	Pro	Cys	Pro	He	Pro	Ala	Gly	Tyr
				565					570					575	
Lys	Ala	Thr	Gly	Lys	Met	Lys	lle	Phe	Gln	Ser	Phe	Asp	Ser	Gly	Lys
			580					585					590		
Pro	Leu	Thr	Ser	Lys	Glu	Asn	lle	Gln	Ala	He	Λsp	Glu	Leu	Arg	Asn
		595					600		•			605			
Lys	Gly	Leu	Pro	Ala	Val	Leu	Va]	Thir	Пе	Gly	Gln	Pro	His	Leu	Leu
	610					615					620				
Asn	Lys	Phe	Asn	Phe	Val	Lys	Ala	Tyr	Phe	Phe	Leu	Ser	Val	Ala	Ala
625					630					635					640
Thr	He	Asn	Cys	Val	Pro	Glu	Asn	Lys	Phe	Lys	Thr	Val	Пе	Thr	Asn
				645					650					655	
Lys	Ser	Lvs	Pro	Asn	Leu	Pro	Asn	Leu	Lys	Glu	Пe	Tvr	Ser	Lvs	Asp

			660					665					670		
Asp	Gly	Ser	Ser	Phe	Tyr	Λsn	Leu	Thr	Lys	Leu	Lys	Asp	Glu	11e	Thr
		675					680					685			
Leu	Ser	Met	Leu	Lys	Ser	Met	Leu	Leu	Met	Glu	Ala	Glu	Asp	Arg	Leu
	690					695					700				
Asn	Phe	Leu	Leu	Ser	Glu	Val	Glu	Gln	Lys	Thr	Leu	Ser	Gln	Cys	Ser
705					710					715					720
Ala	Gly	Glu	Leu	Glu	lle	Val	Val	Glu	Ala	Arg	Leu	Gln	Leu	Ala	Ala
				725					730					735	
Val	Ala	Leu	Gln	Arg	His	Arg	Ala	Ala	Tyr	Ser	Ala	Ala	lle	Val	Phe
			740					745					750		
Ser	Thr	Leu	Thr	Leu	Leu	Gln	Asp	Ser	Lys	Leu	Phe	Glu	Lys	Lys	Val
		755					760					765			
Val	Gln	Asp	Asp	Thr	Glu	Asn	Pro	Val	Ser	Pro	Gly	Thr	Ser	Val	Thr
	770					775					780				
Glu	Asn	Lys	Asp	Asp	Asn	Glu	Phe	Leu	Asp	Pro	lle	Ser	Leu	Asn	Ala
785					790					795					800
Arg	Glu	Tyr	Phe		He	His	Leu	Тгр	Leu	Arg	Cys	Arg	Leu	Ala	Leu
				805					810					815	
Val	Thr	Ala	Phe	Val	Ala	Gln	He		Gly	lle	Gly	He	Val	Lys	G] u
			820					825					830		
Asp	Asp		Thr	Asp	Cys	Leu	•	Leu	He	Asn	Glu	Val	Cys	Met	Glu
		835					840					845			
Ala		Ser	Ala	Gly	Asp		Glu	Leu	Gln	Ala		Phe	Leu	Thr	Gln
	850					855				_	860				
	Val	He	Leu	Gly		GIn	Glu	Lys	His		Lys	Ala	Asp	He	
865			0.1		870				•,	875					880
Thr	Asn	Leu	GIn		He	He	His	Leu	Leu	Glu	Gly	Asn	Glu		He
C	D	C1	C	885	,	T)		. 1	890	C		ı. ı		895	
Ser	Pro	6In		Arg	Leu	lhr	Leu		Arg	Ser	Leu	Val		l.eu	Asp
Λ	1	ть	900	4.3 -	C1	1	131	905	C1	C	ь	C	910	,	Ti
Asp	Leu		Lys	ма	61u	Lys		Lys	Glu	Ser	Pro		ser	Lys	Ihr
C1	Lua	915	Λ	1	1	ть	920	A 1 -	11.7	C	11.	925	ть	C1	CT.
01 À	930	reu	ASII	Leu	Leu	935	Arg	ата	His	ser		Leu	mr	oru	oin
Met		Ala	Pho	Glv	Glu		110	610	Pho	Ara	940 Sor	Sor	Aen	The	Lvc

945				950					955					960
Tyr Ala	Asn	Pro	Leu	Gln	Pro	Leu	Lys	Asn	lle	Tyr	Leu	Pro	His	Val
			965					970					975	
Met Leu	Leu	Ala	Lys	He	Lys	Met	Arg	He	Gly	His	Thr	Val	Ala	Lys
		980					985					990		
Gln Val	Tyr	Tyr	Lys	Asn	Lys	Arg	Lys	Asp	Pro	Ser	Lys	Trp	Leu	Pro
	995					1000					1005			
Ala Leu	His	Leu	Phe	Asp	Val	Ala	Leu	Lys	Leu	Cys	Arg	Thr	Thr	Ala
1010]	1015					1020				
Val Glu	Glu	His	Glu	Val	Glu	Ala	Glu	lle	Leu	Phe	Gln	Lys	Gly	Lys
1025				1030					1035]	040
lle Glu	Arg	Gln	He	Leu	Met	Glu	Glu	Lys	Ser	Pro	Ser	Phe	Gln	Leu
			1045					1050					1055	
Glu Ser	Leu	Tyr	Glu	Ala	He	Gln	Leu	Ser	Leu	Lys	Asn	Asp	Gln	Asn
		1060					1065					1070		
Ser Gly	Leu	He	Arg	Asp	Ser	Tyr	Leu	Glu	Met	Ala	Leu	Leu	Tyr	Phe
	1075					1080					1085			
His Leu	Lys	Lys	Pro	Lys	He	Lys	Ile	Ser	Gly	Ser	Pro	Leu	Thr	Leu
1090				1	1095					1100				
Lys Pro	Pro	Leu	Arg	Arg	Ser	Ser	Ser	Val	Lys	Glu	Thr	Ser	Ala	Asn
1105				1110					1115]	120
Lys Phe	Glu	Met	Tyr	Ser	Ser	Leu	Ala	Trp	lle	Ala	lle	Arg	Ala	Ala
		-	1125					1130					1135	
Ala Gln	Val	Ser	Glu	Ala	Val	Leu	Ala	He	Asn	Leu	Leu	11e	Gly	Lys
		1140					1145					1150		
Lys Asn	Thr	Arg	Met	His	Lys	Val	Asn	Gln	Val	Ala	Leu	Pro	Asn	He
	1155					1160					1165			
Pro Glu	Phe	Ala	Ala	Leu	Asp	Leu	Leu	Ser	Ser	Tyr	Thr	Asp	Tyr	Leu
1170]	1175					1180				
Leu Gly	Met	Phe	Gly	Cys	Leu	His	He	Met	Gln	Lys	Asn			
1185]	190]	1195					

<210> 3967

<211> 510

<212> PRT

<213> Homo sapiens

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l				5					10					15	
Phe	Gly	Thr	Lys	Ala	Val	Leu	Ala	Ser	Gln	Arg	Val	Gly	Lys	Cys	Cys
			20					25					30		
Ser	Phe	Leu	Leu	Ala	Arg	Asn	Thr	Met	Ala	Gly	Thr	Arg	Arg	Val	Glu
		35					40					45			
G1 y	Gln	Val	Gly	Gly	Arg	Pro	Gly	Gly	Pro	Gly	Cys	Ser	Leu	Met	Pro
	50					55					60				
Pro	Pro	Pro	Gln	Glu	Cys	Ala	Gly	Glu	Pro	Leu	Phe	Met	Leu	Tyr	Cys
65					70					75					80
Ala	Пе	Lys	Gln	GIn	Met	Glu	Lys	G1 y	Pro	Пе	Asp	Ala	lle	Thr	Gly
				85					90					95	
Glu	Ala	Arg	Tyr	Ser	Leu	Ser	Glu	Asp	Lys	Leu	He	Arg	Gln	Gln	He
			100					105					110		
Asp	Tyr		Thr	Leu	Thr	Leu		Cys	Val	Asn	Pro		Asn	Glu	Asn
		115					120					125			
Ala		Glu	Val	Pro	Val		Gly	Leu	Asp	Cys		Thr	Val	Thr	Gln
	130	0.1		,		135			a	,	140		Б	T	6
	Lys	Glu	Lys	Leu		Asp	Ala	Ala	lyr		61 y	Val	Pro	Tyr	
145			•		150					155	T.		0.1	6.1	160
61n	Arg	Pro	Lys		Ala	Asp	Met	Asp		Glu	Erp	Arg	GIn	Gly	Arg
VI . a.	A 1	Λ	71.	165	1	C1	Α	C1	170	V - 1	T1	T1	1	175	Δ
Met	ATa	Arg		116	Leu	GIN	Asp		ЛSР	vai	Inr	Inr		lle	Asp
A ~ r>	Aan	T	180	A 22 cr	Lou	Aon	Tha	185	Ala	uic	Tyrn	Cln	190	Thr	Aan
ASII	Asp	тгр	LyS	Arg	Leu	ASH	1111	reu	MI	mis	1 y 1	GIN	vai	Thr	ASP
		195					200					205			
Glv	Ser		Val	Ala	Len	Val		Lvs	Gln	Thr	Ser		Tvr	Asn	He
91,	210	(JC)	• • • •	7110	LCU	215	1.10	Lyo	0111	1113	220	Mu	.,.	11011	110
Ser		Ser	Ser	Thr	Phe		Lvs	Ser	Leu	Ser		Tyr	Glu	Ser	Met
225					230		.2, 0	~~,	1300	235	5	. , .			240
	Arg	Thr	Ala	Ser		Pro	Asp	Ser	Leu		Ser	Arg	Thr	Pro	
	0	-		245			- 1-		250	. 0		.5		255	

He	Thr	Pro	Asp	Leu	Glu	Ser	Gly	Thr	Lys	Leu	Trp	His	Leu	Val	Lys
			260					265					270		
Asn	His	Asp	llis	Leu	Asp	GIn	Arg	Glu	Gly	Asp	Arg	Gly	Ser	Lys	Met
		275					280					285			
Val	Ser	Glu	He	Tyr	Leu	Thr	Arg	Leu	Leu	Ala	Thr	Lys	Gly	Thr	Leu
	290					295					300				
Gln	Lys	Phe	Val	Asp	Asp	Leu	Phe	Glu	Thr	He	Phe	Ser	Thr	Ala	His
305					310					315					320
Arg	Gly	Ser	Ala	Leu	Pro	Leu	Ala	lle	Lys	Tyr	Met	Phe	Asp	Phe	Leu
				325					330					335	
Asp	Glu	Gln	Ala	Asp	Lys	His	Gln	He	His	Asp	Ala	Asp	Val	Arg	His
			340					345					350		
Thr	Trp	Lys	Ser	Asn	Cys	Leu	Pro	Leu	Arg	Phe	Trp	Val	Asn	Val	He
		355					360					365			
Lys	Asn	Pro	Gln	Phe	Val	Phe	Asp	He	His	Lys	Asn	Ser	Thr	Thr	Asp
	370					375					380				
Ala	Cys	Leu	Ser	Val	Val	Ala	Gln	Thr	Phe	Met	Asp	Ser	Cys	Ser	Thr
385					390					395					400
Ser	Glu	His	Lys	Leu	Gly	Lys	Asp	Ser	Pro	Ser	Asn	Lys	Leu	Leu	Tyr
				405					410					415	
Ala	Lys	Asp	He	Pro	Asn	Tyr	Lys	Ser	Trp	Val	Glu	Arg	Tyr	Tyr	Ala
			420					425					430		
Asp	Пе	Ala	Lys	Met	Pro	Ala	He	Ser	Asp	G1n	Asp	Met	Ser	Ala	Tyr
		435					440					445			
Leu	Ala	Glu	Clm	c					_						Sar
	1110	Old	GIII	ser	Arg	Leu	HIS	Leu	Ser	GIn	Phe	Asn	Ser	мет	361
	450	Old	GIH	ser	Arg	Leu 455	HIS	Leu	Ser	Gln	Phe 460	Asn	Ser	met	261
Ala	450					455	His Tyr				460				
Ala 465	450					455					460				
465	450 Leu	His	Glu	He	Tyr 470	455 Ser		He	Thr	Lys 475	460 Tyr	Lys	Asp	Glu	11e 480
465	450 Leu	His	Glu	He	Tyr 470	455 Ser	Tyr	He	Thr	Lys 475	460 Tyr	Lys	Asp	Glu	11e 480
465 Leu	450 Leu Ala	His Ala	G1u Leu	11e Glu 485	Tyr 470 Lys	455 Ser Asp	Tyr	lle Gln	Thr Ala 490	Lys 475 Arg	460 Tyr Arg	Lys Gln	Asp Arg	G1u Leu	11e 480

<211> 1078

<213> Homo sapiens <400> 3968 Met Ser Ser Ser Asp Gly Lys Val Leu Pro Leu Asn Val Gln Val Val Thr Gln His Met Gln Ser Val Lys Gln Ala Pro Lys Thr Pro Gln Asn Val Pro Ala Ser Pro Gly Gly Asp Arg Ser Ala Arg His Arg Tyr Pro Gln Ile Leu Pro Lys Pro Ala Asn Thr Ser Ala Leu Thr Ile Arg Ser Pro Thr Thr Val Leu Phe Thr Ser Ser Pro 11e Lys Thr Ala Val Val Pro Ala Ser His Met Ser Ser Leu Asn Val Val Lys Met Thr Thr Ile Ser Leu Thr Pro Ser Asn Ser Asn Thr Pro Leu Lys His Ser Ala Ser Val Ser Ser Ala Thr Gly Thr Thr Glu Glu Ser Arg Ser Val Pro Gln lle Lys Asn Gly Ser Val Val Ser Leu Gln Ser Pro Gly Ser Arg Ser Ser Ser Ala Gly Gly Thr Ser Ala Val Glu Val Lys Val Glu Pro Glu Thr Ser Ser Asp Glu His Pro Val Gln Cys Gln Glu Asn Ser Asp Glu Ala Lys Ala Pro Gln Thr Pro Ser Ala Leu Leu Gly Gln Lys Ser Asn Thr Asp Gly Ala Leu Gln Lys Pro Ser Asn Glu Gly Val Ile Glu Ile Lys Ala Thr Lys Val Cys Asp Gln Arg Thr Lys Cys Lys Ser Arg Cys Asn Lys Met Leu Pro Gly Thr Ser Thr Gly Asn Asn Gln Ser Thr 11e

Thr Leu Ser Val Ala Ser Gln Asn Leu Thr Phe Thr Ser Ser Ser Ser

<212> PRT

Pro	Pro	Asn	Gly	Asp	Ser	He	Asn	Lys	Asp	Pro	Lys	Leu	Cys	Thr	Lys
			260					265					270		
Ser	Pro	Arg	Lys	Arg	Leu	Ser	Ser	Thr	Leu	Gln	Glu	Thr	Gln	Val	Pro
		275					280					285			
Pro	Val	Lys	Lys	Pro	He	Val	Glu	Gln	Leu	Ser	Ala	Ala	Thr	He	Glu
	290					295					300				
Gly	Gln	Lys	Gln	Gly	Ser	Val	Lys	Lys	Asp	Gln	Lys	Val	Pro	His	Ser
305					310					315					320
Gly	Lys	Thr	Glu	Gly	Ser	Thr	Ala	Gly	Ala	Gln	He	Pro	Ser	Lys	Val
				325					330					335	
Ser	Val	Asn	Val	Ser	Ser	His	He	Gly	Ala	Asn	Gln	Pro	Leu	Asn	Ser
			340					345					350		
Ser	Ala	Leu	Val	lle	Ser	Asp	Ser	Ala	Leu	Glu	Gln	Gln	Thr	Thr	Pro
		355					360					365			
Ser	Ser	Ser	Pro	Asp	He	Lys	Val	Lys	Leu	G] u	Gly	Ser	Val	Phe	Leu
	370					375					380				
Leu	Asp	Ser	Лsp	Ser	Lys	Ser	Val	Gly	Ser	Phe	Asn	Pro	Asn	Gly	Trp
385					390					395					400
Gln	Gln	lle	Thr	Lys	Asp	Ser	Glu	Phe	He	Ser	Ala	Ser	Cys	Glu	Gln
				405					410					415	
Gln	Gln	Asp	He	Ser	Val	Met	Thr	Пе	Pro	Glu	His	Ser	Asp	He	Asn
			420					425					430		
Asp	Leu	Glu	Lys	Ser	Val	Trp	Glu	Leu	Glu	Gly	Met	Pro	Gln	Asp	Thr
		435					440					445			
Tyr	Ser	Gln	Gln	Leu	His	Ser	Gln	He	Gln	Glu	Ser	Ser	Leu	Asn	Gln
	450					455					460				
lle	Gln	Ala	His	Ser	Ser	Asp	Gln	Leu	Pro	Leu	Gln	Ser	Glu	Leu	Lys
465					470					475					480
Glu	Phe	Glu	Pro	Ser	Val	Ser	Gln	Thr	Asn	Glu	Ser	Tyr	Phe	Pro	Phe
				485					490					495	
Asp	Asp	Glu	Leu	Thr	Gln	Asp	Ser	Пe	Val	Glu	Glu	Leu	Val	Leu	Met
			500					505					510		
Glu	Gln	Gln	Met	Ser	Met	Asn	Asn	Ser	His	Ser	Tyr	Gly	Asn	Cys	Leu
		515					520					525			
Gly	Met	Thr	Leu	Gln	Ser	Gln	Ser	Val	Thr	Pro	Gly	Ala	Pro	Met	Ser
	530					535					540				

Ser His Thr 545	Ser Ser	Thr H	is Phe	Tyr His	Pro :	lle l	lis	Ser	Asn	Gly 560
Thr Pro Ile	His Thr		hr Pro	Thr Pro		Pro 1	[hr	Pro	Thr	
1111 110 110	565	, 10 1		570					575	110
Thr Pro Thr		Pro T	hr Ser			Ala (Gly	Ser		Ser
	580			585				590		
Leu Ser Arg	Glu Ser	Pro C	ys Ser	Arg Leu	Ala (Gln 1	Γhr	Thr	Pro	Va]
595			600			6	605			
Asp Ser Ala	Leu Gly	Ser S	er Arg	His Thr	Pro 1	lle (Gly	Thr	Pro	His
610		6	15		(620				
Ser Asn Cys	Ser Ser		al Pro	Pro Ser		Val (Glu	Cys	Arg	
625		630	1 0		635					640
Pro Phe Ala	Phe Thr 645	Pro 1	le Ser		Met /	Ala I	ŀуг	His	-	Ala
Ser lle Val		Sor P	ro Val	650	Mot (Cln i	A re ce	Pro	655 Mot	Ala
Ser Tie var	660	361 1	10 (a)	665	met (OIII 7		670	мет	NJa
Thr His Pro		Thr L	vs Leu		Met /	Asn /			Tyr	Ser
675			680	•			685	-		
Cl., Val. Cl.,	Acn Sor	Ser V	al Sor	Cly Hic	Glar	lle I	en	Pro	Sor	Tyr
Gly Val Gly	Maii Sei	361 1	a1 5c1	dry mis	Oly	110 1	CCG	110	JCI	1 y 3
690	NSII SEI		95	dry mrs		700	cou	110	361	1 9 3
		6	95		Ī	700				
690		6	95		Ī	700				
690 Gln Glu Leu	Val Glu Ser Tyr	6 Asp A 710	95 rg Phe	Arg Lys	Pro 1	700 His <i>i</i>	Ala	Phe	Ala	Val 720
690 Gln Glu Leu 705 Pro Gly Gln	Val Glu Ser Tyr 725	Asp A 710 Gln S	95 rg Phe er Gln	Arg Lys Ser Arg 730	Pro I 715 His I	700 His <i>H</i>	Ala Asp	Phe Thr	Ala His 735	Val 720 Phe
690 Gln Glu Leu 705	Val Glu Ser Tyr 725 Thr Pro	Asp A 710 Gln S	95 rg Phe er Gln	Arg Lys Ser Arg 730 Val Gln	Pro I 715 His I	700 His <i>H</i>	Ala Asp	Phe Thr Ala	Ala His 735	Val 720 Phe
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu	Val Glu Ser Tyr 725 Thr Pro 740	Asp A 710 Gln S Val S	95 rg Phe er Gln er Pro	Arg Lys Ser Arg 730 Val Gln 745	Pro H 715 His I	700 His / His / GIn (Ala Asp Gly	Phe Thr Ala 750	Ala His 735 Thr	Val 720 Phe Val
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu Asn Asn Thr	Val Glu Ser Tyr 725 Thr Pro 740	Asp A 710 Gln S Val S	95 rg Phe er Gln er Pro lu Gly	Arg Lys Ser Arg 730 Val Gln 745	Pro H 715 His I	700 His / His / GIn (Ala Asp Oly Ala	Phe Thr Ala 750	Ala His 735 Thr	Val 720 Phe Val
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu Asn Asn Thr 755	Val Glu Ser Tyr 725 Thr Pro 740 Asn Lys	Asp A 710 Gln S Val S Gln G	95 rg Phe er Gln er Pro lu Gly 760	Arg Lys Ser Arg 730 Val GIn 745 Phe Ala	Pro I 715 His I His (700 His / His / GIn (Ala Asp Gly Ala 765	Phe Thr Ala 750 Pro	Ala His 735 Thr Leu	Val 720 Phe Val Asp
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu Asn Asn Thr	Val Glu Ser Tyr 725 Thr Pro 740 Asn Lys	6 Asp A 710 Gln S Val S Gln G Ser S	95 rg Phe er Gln er Pro lu Gly 760	Arg Lys Ser Arg 730 Val GIn 745 Phe Ala	Pro I 715 His I His (700 His / His / GIn (Ala Asp Gly Ala 765	Phe Thr Ala 750 Pro	Ala His 735 Thr Leu	Val 720 Phe Val Asp
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu Asn Asn Thr 755 Asn Lys Gly	Val Glu Ser Tyr 725 Thr Pro 740 Asn Lys Thr Asn	Asp A 710 Gln S Val S Gln G Ser S 7	95 rg Phe er Gln er Pro lu Gly 760 er Ala 75	Arg Lys Ser Arg 730 Val Gln 745 Phe Ala Ser Ser	Pro I 715 His I His C Val I	700 His / His / GIn (Pro / 780	Ala Asp Gly Ala 765	Phe Thr Ala 750 Pro	Ala His 735 Thr Leu	Val 720 Phe Val Asp
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu Asn Asn Thr 755 Asn Lys Gly 770	Val Glu Ser Tyr 725 Thr Pro 740 Asn Lys Thr Asn	Asp A 710 Gln S Val S Gln G Ser S 7	95 rg Phe er Gln er Pro lu Gly 760 er Ala 75	Arg Lys Ser Arg 730 Val Gln 745 Phe Ala Ser Ser	Pro I 715 His I His C Val I	700 His / His / GIn (Pro / 780	Ala Asp Gly Ala 765	Phe Thr Ala 750 Pro	Ala His 735 Thr Leu	Val 720 Phe Val Asp
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu Asn Asn Thr 755 Asn Lys Gly 770 Val Ser Pro	Val Glu Ser Tyr 725 Thr Pro 740 Asn Lys Thr Asn Ala Val	64 Asp A 710 Gln S Val S Gln G Ser S 7 His A 790	95 rg Phe er Gln er Pro lu Gly 760 er Ala 75 .rg Gln	Arg Lys Ser Arg 730 Val Gln 745 Phe Ala Ser Ser Arg Asn	Pro I 715 His I His C Val I Asn I Leu S 795	700 His / His / Gln (Pro / 780 Ser (Ala Asp Gly Ala 765 Arg	Phe Thr Ala 750 Pro Cys	Ala His 735 Thr Leu Arg	Val 720 Phe Val Asp Ser Leu 800
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu Asn Asn Thr 755 Asn Lys Gly 770 Val Ser Pro 785	Val Glu Ser Tyr 725 Thr Pro 740 Asn Lys Thr Asn Ala Val	64 Asp A 710 Gln S Val S Gln G Ser S 7 His A 790	95 rg Phe er Gln er Pro lu Gly 760 er Ala 75 .rg Gln	Arg Lys Ser Arg 730 Val Gln 745 Phe Ala Ser Ser Arg Asn	Pro I 715 His I His C Val I Asn I Leu S 795 Val	700 His / His / Gln (Pro / 780 Ser (Ala Asp Gly Ala 765 Arg	Phe Thr Ala 750 Pro Cys	Ala His 735 Thr Leu Arg	Val 720 Phe Val Asp Ser Leu 800
690 Gln Glu Leu 705 Pro Gly Gln Gly Arg Leu Asn Asn Thr 755 Asn Lys Gly 770 Val Ser Pro 785	Val Glu Ser Tyr 725 Thr Pro 740 Asn Lys Thr Asn Ala Val Ser Asn 805	Asp A 710 Gln S Val S Gln G Ser S 7 His A 790 Ile P	95 rg Phe er Gln er Pro lu Gly 760 fer Ala 75 rg Gln	Arg Lys Ser Arg 730 Val Gln 745 Phe Ala Ser Ser Arg Asn Ser Asn 810	Pro I 715 His I Wal I Asn I Leu S 795 Val	700 His / His / Gln (Pro / 780 Ser (Ala Asp Gly Ala 765 Arg	Phe Thr Ala 750 Pro Cys Ser	Ala His 735 Thr Leu Arg Thr Gly 815	Val 720 Phe Val Asp Ser Leu 800 Ser

Cys	Ala	Asn	Asn	Ile	Ala	Gln	Arg	Ser	Gln	Ser	Val	Pro	Leu	Thr	Val
		835					840					845			
Met	Met	Gln	Thr	Ala	Phe	Pro	Asn	Ala	Leu	G] n	Lys	Gln	Ala	Asn	Ser
	850					855					860				
Lys	Lys	lle	Thr	Asn	Val	Leu	Leu	Ser	Lys	Leu	Asp	Ser	Asp	Asn	Asp
865					870					875					880
Asp	Ala	Val	Arg	Gly	Leu	Gly	Met	Asn	Asn	Leu	Pro	Ser	Asn	Tyr	Thr
				885					890					895	
Ala	Arg	Met	Asn	Leu	Thr	Gln	lle	Leu	Glu	Pro	Ser	Thr	Val	Phe	Pro
			900					905					910		
Ser	Ala	Asn	Pro	Gln	Asn	Met	He	Asp	Ser	Ser	Thr	Ser	Val	Tyr	Glu
		915					920					925			
Phe	Gln	Thr	Pro	Ser	Tyr	Leu	Thr	Lys	Ser	Asn	Ser	Thr	Gly	Gln	He
	930					935					940				
Asn	Phe	Ser	Pro	Gly	Asp	Asn	Gln	Ala	Gln	Ser	Glu	Пе	Gly	Glu	Gln
945					950					955					960
Gln	Leu	Asp	Phe	Asn	Ser	Thr	Val	Lys	Asp	Leu	Leu	Ser	Gly	Asp	Ser
				965					970					975	
Leu	Gln	Thr	Asn	Gln	Gln	Leu	Val	Gly	Gln	Gly	Ala	Ser	Asp	Leu	Thr
			980					985					990		
Asn	Thr	Ala	Ser	Asp	Phe	Ser	Ser	Asp	He	Arg	Leu	Ser	Ser	Glu	Leu
		995					1000					1005			
Ser	Gly	Ser	He	Asn	Asp	Leu	Asn	Thr	Leu	Asp	Pro	Asn	Leu	Leu	Phe
	1010					1015					1020				
		Gly	Arg			Gly	Gln	Asp			Ala	Thr	Leu	Glu	
1025					1030					1035					1040
Leu	Lys	Asn			Leu	Phe	Gln			Cys	Ser	Glu		Met	Asn
				1045					1050					1055	
Ser	Met			Ser	Gly	Phe			He	Glu	Ser			His	Pro
			1060					1065					1070		
Thr			Met	Leu	Gly										
		1075													

<210> 3969 <211> 988 <212> PRT

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<213> Homo sapiens
<400> 3969
Met Ser Ala Gly Asp Ala Lys Asn Leu Leu Asp Thr Lys Leu Pro Thr
                                     10
Ser Glu Leu Lys Ile Tyr Ala Lys Asp Ile Ile Asn Ile Leu Glu
                                 25
Thr Ile Val Lys Glu Phe Gly Lys Val Lys Gln Thr Lys Ala Leu Pro
         35
                             40
                                                 45
Ser Asp Gln Ile Ile Ala Ala Gly Lys Ile Val Asn Thr Val Leu Gln
                         55
                                             60
Glu Leu Tyr Val Thr Asn Asn Cys Asn Leu Ala Tyr Pro Met Lys Ser
65
                     70
                                         75
                                                              80
Ser His Leu Arg Leu Ser Gln Gly Asn Ile Gly Thr Gly Ser Leu Pro
Lys Gln Gln Ala Cys Phe Tyr Leu Glu Asn Val Ser Ser Gln Leu Glu
                                105
His Ile Phe Pro Arg Glu Gly Ile Phe Lys Lys Leu Phe Asp Lys Trp
        115
                            120
                                                125
Gln Thr Glu Ser Asn Asp Lys Glu Asn Glu Lys Cys Lys Leu Leu Met
                        135
Ile Ala Glu Asn Val Leu Thr Glu lle Ser lle Lys Ala Lys Glu Leu
                                        155
145
                    150
                                                             160
Glu Tyr Ser Leu Ser Leu Leu Asn Leu Pro Pro Leu Glu Asn Cys Glu
                                    170
                165
Ser Arg Phe Tyr Asn His Phe Lys Gly Ala Ser Thr Arg Ala Glu Asp
                                185
Thr Lys Ala Gln Ile Asn Met Phe Gly Arg Glu Ile Val Glu Met Leu
        195
                            200
                                                205
Leu Glu Lys Leu Gln Leu Cys Phe Leu Ser Gln Ile Pro Thr Pro Asp
                        215
                                            220
Ser Glu Glu Thr Leu Ser Asn Ser Lys Glu His 11e Thr Ala Lys Ser
225
                    230
                                        235
                                                             240
Lys Tyr Gly Phe Pro Asn Lys His Ser Leu Ser Ser Leu Pro 11e Tyr
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Asn	Thr	Lys	Thr	Lys	Asp	Gln	lle	Ser	Val	Gly	Ser	Ser	Asn	Gln	He
			260					265					270		
Val	Gln	Glu	He	Val	Glu	Thr	Val	Leu	Asn	Met	Leu	Glu	Ser	Phe	Val
		275					280					285			
Asp	Leu	Gln	Phe	Lys	His	He	Ser	Lys	Tyr	Glu	Phe	Ser	Glu	He	Val
	290					295					300				
Lys	Met	Pro	11e	Glu	Asn	Leu	Ser	Ser	He	Gln	Gln	Lys	Leu	Leu	Asn
305					310					315					320
Lys	Lys	Arg	Leu	Pro	Lys	Leu	Gln	Pro	Leu	Lys	Met	Phe	Ser	Asp	Lys
				325					330					335	
Ser	Glu	Ser	Asn	Thr	He	Asn	Phe	Lys	Glu	Asn	He	Gln	Asn	He	Leu
			340					345					350		
Leu	Arg	Val	His	Ser	Phe	His	Ser	Gln	Leu	Leu	Thr	Tyr	Ala	Val	Asn
		355					360					365			
11e	He	Ser	Asp	Met	Leu	Ala	Val	11e	Lys	Asn	Lys	Leu	Asp	Asn	Glu
	370					375					380				
lle	Ser	Gln	Met	Glu	Pro	Ser	Ser	He	Ser	He	Leu	Lys	Glu	Asn	He
385					390					395					400
Val	Ala	Ser	Glu	He	He	Gly	Thr	Leu	Met	Asp	Gln	Cys	Thr	Tyr	Phe
				405					410					415	
Asn	Glu	Ser	Leu	lle	Gln	Asn	Leu	Ser	Arg	Glu	Ser	Leu	Phe	Gln	Gly
			420	/				425					430		
Ala	Glu	Asn	Ala	Tyr	Thr	Val	Asn	Gln	Val	Glu	Leu	Ala	Thr	Asn	Met
		435					440					445			
Lys	Met	Phe	Thr	Ser	Lys	Leu	Lys	Glu	Gly	Ser	Leu	Gly	He	Asn	Pro
	450					455					460				
Ser	Gln	Val	Ser	Lys	Thr	Gly	Phe	Val	Phe	Cys	Ser	Asp	Glu	Asp	Met
465					470					475					480
Lys	Glu	Lys	Tyr	Arg	Va]	Ser	Ser	Asp	Leu	Pro	Thr	Ser	Val	Arg	Ser
				485					490					495	
Ser	Val	Glu	Asp	Thr	Val	Lys	Asn	Ser	Glu	Pro	Thr	Lys	Arg	Pro	Asp
			500					505					510		
Ser	Glu	Thr	Met	Pro	Ser	Cys	Ser	Thr	Arg	Asn	Lys	Val	Gln	Asp	His
		515					520					525			
Arg	Pro	Arg	Glu	Ser	Asn	Phe	Gly	Ser	Phe	Asp	Gln	Thr	Met	Lys	Gly
	530					535					540				

Asn	Ser	Tyr	Leu	Pro	Glu	Gly	Ser	Phe	Leu	GIn	Lys	Leu	Leu	Arg	Lys
545					550					555					560
Ala	Ser	Asp	Ser	Thr	Glu	Ala	Ala	Leu	Lys	Gln	Val	Leu	Ser	Phe	He
				565					570					575	
Glu	Met	Gly	Lys	Gly	Glu	Asn	Leu	Arg	Val	Phe	His	Tyr	Glu	Asn	Leu
			580					585					590		
Lys	Pro	Val	Val	Glu	Pro	Asn	Gln	He	Gln	Thr	Thr	He	Ser	Pro	Leu
		595					600					605			
Lys	He	Cys	Leu	Ala	Ala	Glu	Asn	lle	Val	Asn	Thr	Val	Leu	Ser	Ser
	610					615					620				
Cys	Gly	Phe	Pro	Ser	Gln	Pro	His	Thr	Asn	Glu	Asn	Arg	Glu	He	Met
625					630					635					640
Lys	Pro	Phe	Phe	He	Ser	Lys	Gln	Ser	Ser	Leu	Ser	Glu	Val	Ser	Gly
				645					650					655	
Gly	Gln	Lys	Asp	Asn	Glu	Lys	Ser	Leu	Leu	Arg	Met	Gln	Asp	Lys	Lys
			660					665					670		
lle	Asn	Tyr	Ile	Pro	Glu	Glu	Glu	Asn	Glu	Asn	Leu	Glu	Ala	Ser	Arg
		675					680					685			
Glu	Asp	Ser	Ser	Phe	Leu	Gln	Lys	Leu	Lys	Lys	Lys	Glu	Tyr	Pro	Lys
	690					695					700				
He	Glu	Thr	Val	Lys	Glu	Val	Glu	Ala	Phe	Thr	Phe	Ala	Asp	His	Glu
705					710					715					720
Met	Gly	Ser	Asn	Glu	Val	His	Leu	lle	Ala	Arg	His	Val	Thr	Thr	Ser
				725					730					735	
Val	Va]	Thr	Tyr	Leu	Lys	Asn	Phe	Glu	Thr	Thr	Val	Phe	Ser	Glu	Glu
			740					745					750		
Lys	Met	Ser	Val	Ser	Thr	Trp	Ser	Arg	Lys	Lys	Tyr	Glu	Ser	Lys	Gln
		755					760					765			
Phe	Leu	Arg	Asn	lle	Tyr	Asp	Asp	Ser	Ser	He	Tyr	Gln	Cys	Cys	Glu
	770					775					780				
His	Leu	Thr	Glu	Ser	Val	Leu	Tyr	His	Leu	Thr	Ser	Ser	He	Ser	Asp
785					790					795					800
Gly	Thr	Lys	Lys	G1y	Arg	Glu	Lys	Glu	Lys	Ala	Trp	Glu	11e	Gln	Glu
				805					810					815	
Ala	Thr	Phe	Ser	Lys	He	He	Ser	He	His	Ser	Gln	Val	Phe	Glu	Ser

			820					825					830		
Arg	Ser	He	Ser	He	Gly	Glu	Leu	Ala	Leu	Cys	He	Ser	Glu	He	lle
		835					840					845			
Пе	Lys	Пе	Leu	Phe	Asn	Asn	Lys	lle	Пе	Gln	Ala	Asp	He	Ala	Gln
	850					855					860				
Lys	Met	Val	Ala	Пе	Pro	Thr	Lys	Tyr	Thr	Tyr	Cys	Pro	Gly	Пe	Val
865					870					875					880
Ser	Gly	Gly	Phe	Asp	Asp	Leu	Phe	Gln	Asp	Leu	Leu	Val	Gly	Val	He
				885					890					895	
His	Val	Leu	Ser	Lys	Glu	He	Glu	Val	Asp	Tyr	His	Phe	Glu	Ser	Asn
			900					905					910		
Val	Arg	Asp	Lys	Ser	Phe	Ser	Met	His	Arg	Asn	Asn	Ser	Val	Pro	He
		915					920					925			
Cys	Asn	Lys	Пе	Asn	Arg	Gln	Ala	Ser	Pro	Arg	Asp	Trp	Gln	Phe	Ser
	930					935					940				
Thr	Gln	Gln	He	Gly	Gln	Leu	Phe	Gln	Lys	Asn	Lys	Leu	Ser	Tyr	Leu
945					950					955					960
Ala	Cys	Lys	Leu	Asn	Ser	Leu	Val	G1 y	Asn	Leu	Lys	Thr	Ser	Glu	Ser
				965					970					975	
Lys	Glu	Val	Val	Asn	Lys	Val	Phe	Asn	He	Val	Ser				
			980					985							

<211> 113

<212> PRT

<213> Homo sapiens

<400> 3970

Met Gln Ser Trp Gly Pro Pro Ala Pro Pro Ala Ser Ser Ser Leu Arg 1 5 5 10 15 15 Ala Pro His Gln Lys Val Leu Thr Arg Lys Ser Ile Pro Phe Leu Gln 20 25 30 His Arg Pro Leu Gly Pro Cys Ser Leu His Leu His Pro Leu Ser His 35 40 45

His Ser Pro His Pro His Ser Ser His Arg Ser Arg Ser Ser Ser Trp
50

Ala Ile Pro Thr Thr Pro Pro Arg Val Ser Pro Ala Pro Pro Cys Ala
65

Gly Gln Cys Pro Pro Pro Gly Pro Asp Leu Pro Pro Ser Trp Pro Leu
85

Pro Arg Pro Glu Pro Ser Val His Ala Ala Val Thr Thr Val Arg Leu
100

Ala

<210> 3971

⟨211⟩ 323

<212> PRT

<213> Homo sapiens

<400> 3971

130

Met Glu Val Leu Ser Gly Val Ala Lys Gly Tyr Asn Ile Cys Leu Phe 5 10 Ala Tyr Gly Gln Thr Gly Ser Gly Lys Thr Tyr Thr Met Leu Gly Thr 25 Pro Ala Ser Val Gly Leu Thr Pro Arg 11e Cys Glu Gly Leu Phe Val 35 40 45 Arg Glu Lys Asp Cys Ala Ser Leu Pro Ser Ser Cys Arg 11e Lys Val 55 Ser Phe Leu Glu Ile Tyr Asn Glu Arg Val Arg Asp Leu Leu Lys Gln 70 75 Ser Gly Gln Lys Lys Ser Tyr Thr Leu Arg Val Arg Glu His Pro Glu 85 90 Met Gly Pro Tyr Val Gln Gly Leu Ser Gln His Val Val Thr Asn Tyr 105 Lys Gln Val lle Gln Leu Leu Glu Glu Gly Ile Ala Asn Arg lle Thr 115 120 125

Ala Ala Thr His Val His Glu Ala Ser Ser Arg Ser His Ala Ile Phe

140

Thr 11e His Tyr Thr Gln Ala Ile Leu Glu Asn Asn Leu Pro Ser Glu 150 155 Met Ala Ser Lys Ile Asn Leu Val Asp Leu Ala Gly Ser Glu Arg Ala 170 Asp Pro Ser Tyr Cys Lys Asp Arg lle Ala Glu Gly Ala Asn lle Asn 185 Lys Ser Leu Val Thr Leu Gly He Val He Ser Thr Leu Ala Gln Asn 200 205 Ser Gln Val Phe Ser Ser Cys Gln Ser Leu Asn Ser Ser Val Ser Asn 210 215 220 Gly Gly Asp Ser Gly Ile Leu Ser Ser Pro Ser Gly Thr Ser Ser Gly 230 235 Gly Ala Pro Ser Arg Arg Gln Ser Tyr Ile Pro Tyr Arg Asp Ser Val 245 250 255 Leu Thr Trp Leu Leu Lys Asp Ser Leu Gly Gly Asn Ser Lys Thr 11e 260 265 270 Met Val Ala Ser Glu Trp Asp Ala Arg Ala Gly Pro Val Leu Gly Leu 280 Val Leu Tyr Leu Arg Glu Arg Ala Met Ala Pro Val Ser Gly Met Pro 290 295 300 Glu Leu Asp Leu Cys Trp Asp Trp Tyr Ser Ile Ser Glu Lys Gly Pro 305 310 315 320 Trp Pro Gln

<210> 3972

<211> 139

<212> PRT

<213> Homo sapiens

<400> 3972

Met Arg Val Thr Leu Gly Leu Glu Gln Arg Asp Thr Ala Glu Trp Pro

1 5 10 15

Leu Val Pro Arg Thr Arg Gln Ser Ser Arg Thr Gly Cys Lys Pro Ala

20 25 30

Ile Val Ala Met Pro Val Trp Glu Thr Gln Leu Ala Leu Asp Phe Ser Gly Asn His His Val Arg His Ser His Phe His Pro Ser Gln Gly Phe Leu Arg Asp Pro Gly Ser Leu Ser Gln Thr Ser Lys Leu Ser Arg Glu 70 75 Cys Val Cys Leu Ser Ser Asn Leu Asn Thr Leu Gly Cys Ser Val Arg 85 90 Cys Arg Ser Glu Thr Ala Val Glu Thr Arg Phe Pro Ala Leu Gly Trp 100 105 110 Gly Pro His Lys Ala Ser Ser Ile Ser Pro Trp Pro Ser Phe Leu Ile 120 125 Cys Arg Thr Gly Ser Leu Glu Asn Leu Gly Gly 130 135

<210> 3973

<211> 241

<212> PRT

<213> Homo sapiens

<400> 3973

Met Tyr 11e Tyr Leu Leu Pro Val Arg Phe Glu Arg 11e Phe Phe Phe 1 5 10 15

Phe Phe Phe Leu Arg Arg Thr Leu Thr Leu Ser Pro Arg Leu Glu Cys 20 25 30

Ser Gly Thr 11e Ser Asp His Cys Asn Leu Cys Leu Pro Gly Ser Ser 35

Asp Ser Pro Thr Ser Ala Ser His Val Ala Gly 11e Thr Gly 11e Arg

Asp Ser Pro Inr Ser Ala Ser His Val Ala Giv lie inr Giv lie Arg
50 55 60

His His Ala Arg Leu Lys Phe Phe Cys Ile Phe Ser Arg Asp Gly Ala 65 70 75 80

Leu Pro Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Leu

85 90 95

Pro Ala Leu Ala Ser Gln Ser Ala Val Ile Arg Gly Met Ser His Arg 100 105 110 Thr Leu Pro Lys Gly Tyr 11e Arg Pro Tyr Lys Tyr Phe Asp Ser Leu 120 Phe Phe Phe Phe Phe Leu Glu Thr Glu Phe Cys Ser Cys Cys Pro 130 135 140 Gly Trp Ser Ala Val Gly Gln Ser Gln Leu Thr Ala Thr Ser Ala Ser 150 155 Trp Val Gln Ala Val Leu Leu Pro Gln Ser Pro Glu Trp Leu Gly Leu 165 170 Gln Ala His Ala Arg Leu Ile Phe Val Phe Leu Val Glu Met Gly Phe 185 190 His Arg Val Gly Gln Ala Asp Leu Lys Leu Leu Thr Ser Ala His Leu 200 205 Ser Leu Pro Lys Cys Trp Asp Tyr Arg Arg Glu Pro Pro Arg Pro Ala 210 215 220 Lys Tyr Phe Tyr Tyr Thr Met His lle Val Glu Tyr Met Leu Leu Val 225 230 235 240 Leu

<210> 3974

<211> 133

<212> PRT

<213> Homo sapiens

<400> 3974

His Arg Lys Leu His Leu Pro Gly Ser His His Ser Pro Ala Ser Ala 65 70 75 80

 Ser Arg
 Val
 Pro
 Gly
 Thr
 Met
 Gly
 Thr
 Cys
 Gln
 His
 Ala
 Gln
 Leu
 11e

 Phe
 Ser
 Ile
 Asp
 Gly
 Asp
 Gly
 Val
 Ser
 Pro
 Cys
 Trp
 Pro
 Gly
 Trp

 Fer
 Ile
 Asp
 Leu
 Met
 Ile
 His
 Pro
 Pro
 Arg
 Pro
 Ser
 Lys
 Val

 Leu
 Gly
 Leu
 Gln
 Ala
 120
 125
 125
 125
 126

<210> 3975

<211> 109

<212> PRT

<213> Homo sapiens

<400> 3975

Met Trp Ala Ser Pro Ala Pro Thr Leu lle Asp Ser Gly Asp Ser Val 1 5 10 15

Val Ala Lys Tyr Ile Asn Arg Phe Arg Gln Ala Gln Pro Thr Ser Arg 20 25 30

Glu Glu Arg Gln Pro Ala Gly Pro Thr Pro Ala Asp Phe Trp Trp Leu 35 40 45

Gln Ser Asp Ser Pro Gly Pro Ser Ser Gln Ser Ala Ala Ala Gly Ala 50 55 60

Asn Lys Pro Glu Gly Arg Pro His Thr Ala Val Pro Thr Ala Val Asn 65 70 75 80

Val Thr Ser Ala Ser His Ala Val Ala Pro Leu Gln Glu Ile Lys Gln 85 90 95

Val Thr Ser Pro Phe Thr Pro Ser Leu Gly Cys Leu Asn 100 105

<210> 3976

<211> 147

<212> PRT

<213> Homo sapiens

<400> 3976 Met Gln Ser Pro Cys Pro Val Ser Pro Glu Thr Gly Gly Pro Cys Phe Pro Val Glu Leu Thr Ala Asp Gly Arg Ala Thr Val Val Trp Val Trp Pro Gly Val Ile Gln Glu Gly His Leu Gly Ala Ser His Gly Gln Met Phe Ser Gly Pro Pro Gly Gly Val Thr Leu Ala Ser Pro Trp Ser Arg Gln Leu Thr Ala Pro Ala Pro Pro Pro Pro Pro Cys Leu Pro Cys His Pro Trp Gly Gln Val Ser Ser Met Thr Phe Pro Ala Pro Ser Leu Tyr Leu Val Thr Val Asn Pro Arg Arg Lys Arg Arg Tyr His Leu Leu Gln Lys Ala Lys Asn Gln Val Arg Phe Gln Val Val Gly His Leu Gly Gly Ser Pro Arg Pro Thr Leu Ala Gly Phe Leu Arg Gly Phe Gln Ser Thr Trp Arg <210> 3977 <211> 109 <212> PRT <213> Homo sapiens <400> 3977 Met Ala Trp Gly Ser Val Gly Val Gly Pro Leu Val Val Trp Val Cys Ala Gly Val Gly Trp Cys Gly Cys Arg Arg Leu Gly Gly Cys Val Arg

Val Leu Gly Ile His Val Val Trp Gly Cys Val Asp Val Tyr Thr Gly

<210> 3978

<211> 102

<212> PRT

<213> Homo sapiens

<400> 3978

Met Ser Ser Phe Leu Gly Gly Gly Glu Asp Arg Val Leu Leu Cys Arg

1 5 10 15

Ala Gly Trp Ser Ala Val Val Arg Ser Arg Leu Thr Ala Leu Ser Ala 20 25 30

Ser Trp Val Arg Glu lle Leu Leu Pro Gln Pro Pro Glu Trp Leu Gly
35 40 45

Leu Gln Val Arg Ala Thr Thr Leu Ser Ser Phe Phe Leu Cys Ala Phe 50 55 60

Cys Val Val Ala Gly Phe Ser Gln Cys Cys Pro Gly Trp Cys His Thr 65 70 75 80

Pro Gly Leu Lys Gln Ser Ser Arg Leu Gly Leu Pro Lys Cys Trp Asp 85 90 95

Tyr Arg Arg Glu Pro Arg

100

<210> 3979

<211> 115

<212> PRT

<213> Homo sapiens

<400> 3979 Met Arg Val Leu His Val Gly Ala Phe Asn Trp Glu Glu Phe Leu Leu Ala Cys Asp Gly Phe Ser Asn Gly Ala Glu Ile Pro Lys Tyr Lys Pro 25 Ala Asn Arg Ala Leu Lys Phe His Gly Val Ser Phe Pro Ala Ala Cys 40 Ser Gly Pro Val Arg Cys Cys Gly Met Phe Thr lle Glu Pro Gly Ser 50 55 60 Val Pro Leu Gly Arg Ala Ala Ala Leu Val Glu Arg Val Arg Ser Gly 70 75 Pro Pro Pro Arg Gly Gln Pro Gly Leu Ser Gly Gly Gln Lys Pro Leu 85 90 Met Glu Asp Phe Ser Ser Leu Val Ser Gln Ala Gly Cys Ile Phe Val 100 105 110 Arg Leu Ser 115 <210> 3980 <211> 150 <212> PRT

<400> 3980

<213> Homo sapiens

 Met
 Met
 Cys
 Phe
 Ile
 Ser
 Val
 Phe
 Asp
 Val
 Phe
 Ser
 Phe
 Phe
 Ser
 Pro

 1
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His His Phe Thr Leu Leu Lys Val 11e Met Asn Thr Arg Ser Glu 11e 65 70 75 80

 Pro
 Phe
 Leu
 Ala
 Pro
 Ser
 Thr
 Leu
 Gly
 Phe
 Phe
 Glu
 Met
 Glu
 Ser
 His

 Cys
 Val
 Thr
 Gln
 Ala
 Val
 Ala
 Arg
 Leu
 Cys
 Ala
 Leu
 Gln
 Pro
 Pro
 Pro
 Pro
 Pro
 Ino
 I

150

<210> 3981

<211> 132

145

<212> PRT

<213> Homo sapiens

<400> 3981

Met Arg Asn Met Ile Pro Gln Asp Asn Glu Asn Pro Pro Gln Gln Gly 5 10 1 15 Glu Ala Asn Gln Asn Asp Phe Ala Leu Val Ala Gln Ala Gly Val Gln 25 Trp Leu Asp Leu Gly Pro Gln Leu Pro Leu Leu Pro Gly Phe Lys Arg 35 40 45 Phe Phe Cys Leu Ser Leu Leu Ser Scr Cys Gly Tyr Ser Trp Ser Leu 55 Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Ala 11e Ser Ala Tyr Gly 70 75 Lys Leu Arg Leu Pro Gly Ser Cys His Ser Pro Ala Ser Ala Ser Arg 85 90 95 Val Ala Arg Thr Thr Gly Ala Arg His His Thr Arg Leu lle Phe Val 105 Phe Leu Val Glu Thr Arg Phe His Arg Val Ser Gln Asp Gly Leu Asp

120

125

Leu Leu Thr Ser

115

```
<210> 3982
<211> 152
<212> PRT
<213> Homo sapiens
<400> 3982
Met Arg Asn Gln Ala Pro Gly Arg Pro Lys Gly Ala Thr Phe Pro Pro
                  5
                                     10
Arg Arg Pro Thr Gly Ser Arg Ala Pro Pro Leu Ala Pro Glu Leu Arg
                                 25
Ala Lys Gln Arg Pro Gly Glu Arg Val Met Ala Leu Pro Val Thr Ala
                             40
                                                 45
Leu Leu Leu Pro Leu Ala Leu Leu Leu His Ala Ala Arg Pro Ser Gln
                         55
Phe Arg Val Ser Pro Leu Asp Arg Thr Trp Asn Leu Gly Glu Thr Val
                     70
                                         75
Glu Leu Lys Cys Gln Val Leu Leu Ser Asn Pro Thr Ser Gly Cys Ser
                 85
                                     90
Trp Leu Phe Gln Pro Arg Gly Ala Ala Ala Ser Pro Thr Phe Leu Leu
                                105
Tyr Leu Ser Gln Asn Lys Pro Lys Ala Ala Glu Gly Leu Asp Thr Gln
                            120
                                                 125
        115
Arg Phe Ser Gly Lys Arg Leu Gly Asp Thr Phe Val Leu Thr Leu Ser
                        135
                                            140
Asp Phe Arg Arg Glu Asn Glu Gly
                    150
```

<211> 130

<212> PRT

<213> Homo sapiens

<400> 3983

Met Gly Phe Pro Gln Arg Arg Leu Gly Lys Ser Val Gly Val Thr Ala 1 5 10 Gly Gly Leu Leu Gly Leu Gln Glu Arg Gln Asn His Arg Pro Leu 20 25 30 Cys Gly Phe Gln Ala Gly Leu Gly Phe Pro Gly Gly Leu Gly Phe Cys 40 45 Ala Leu His Asp Cys Leu Ala Gln Asp Leu Ser His Leu Gln Gln Glu 55 60 Glu Ala Gly Thr Leu Gly Arg Ala Gly Cys Cys Leu Val Leu Lys Pro 70 65 75 Leu Ala Ala Cys Pro Ser Ser Ser Arg Ser Ala Val Pro Gly Gly Ala 90 Gly Ser Leu Arg Arg Ala Gly Pro Gly Leu Ser Tyr Pro Leu Arg Ala 100 105 110 Trp His Cys Pro Gly Arg Gly Ala Phe Val Gln Tyr Tyr Ser Asn Asp 115 120 125 Arg Thr 130

<210> 3984

<211> 270

<212> PRT

<213> Homo sapiens

<400> 3984

Met Ser Ser Arg Lys Gln Gly Ser Gln Pro Arg Gly Gln Gln Ser Ala 1 5 10 15

Glu Glu Glu Asn Phe Lys Lys Pro Thr Arg Ser Asn Met Gln Lys Asn 20 25 30

Leu Glu Pro Ala Leu Pro Gly Arg Trp Gly Gly Arg Ser Ala Glu Asn
35
40
45

Pro Pro Ser Gly Ser Val Arg Lys Thr Arg Lys Asn Lys Gln Lys Thr 50 55 60

Pro Gly Asn Gly Asp Gly Gly Ser Thr Ser Glu Ala Pro Gln Pro Pro 65 70 75 80

Arg Lys Lys Arg Ala Arg Ala Asp Pro Thr Val Glu Ser Glu Glu Ala Phe Lys Asn Arg Met Glu Val Lys Val Lys Ile Pro Glu Glu Leu Lys Pro Trp Leu Val Glu Asp Trp Asp Leu Val Thr Arg Gln Lys Gln Leu Phe Gln Leu Pro Ala Lys Lys Asn Val Asp Ala lle Leu Glu Glu Tyr Ala Asn Cys Lys Ser Gln Gly Asn Val Asp Asn Lys Glu Tyr Ala Val Asn Glu Val Val Ala Gly Ile Lys Glu Tyr Phe Asn Val Met Leu Gly Thr Gln Leu Leu Tyr Lys Phe Glu Arg Pro Gln Tyr Ala Glu lle Leu Leu Ala His Pro Asp Ala Pro Met Ser Gln Val Tyr Gly Ala Pro His Leu Leu Arg Leu Phe Val Arg Ile Gly Ala Met Leu Ala Tyr Thr Pro Leu Asp Glu Lys Ser Leu Ala Leu Leu Gly Tyr Leu His Asp Phe Leu Lys Tyr Leu Ala Lys Asn Ser Ala Ser Leu Phe Thr Ala Ser Asp Tyr Lys Val Ala Ser Ala Glu Tyr His Arg Lys Ala Leu

<210> 3985

<211> 499

<212> PRT

<213> Homo sapiens

⟨400⟩ 3985

Met Arg His Leu Val His Met Ala Ser Phe Ser Ala Gln Thr Asn Met

1 5 10 15

His Ala Arg Asn Leu Ala Ile Val Trp Ala Pro Asn Leu Leu Arg Ser

20 25 30

Lys	Asp	He	${\sf Glu}$	Ala	Ser	Gly	Phe	Asn	Gly	Thr	Ala	Ala	Phe	Met	Glu
		35					40					45			
Val	Arg	Val	GIn	Ser	He	Val	Val	Glu	Phe	He	Leu	Thr	His	Va]	Asp
	50					55					60				
Gln	Leu	Phe	Gly	Gly	Ala	Ala	Leu	Ser	Gly	Gly	Glu	Val	Glu	Ser	Gly
65					70					75					80
Trp	Arg	Ser	Leu	Pro	Gly	Thr	Arg	Ala	Ser	G1 y	Ser	Pro	Glu	Asp	Leu
				85					90					95	
Met	Pro	Arg	Pro	Leu	Pro	Tyr	His	Leu	Pro	Ser	He	Leu	Gln	Ala	Gly
			100					105					110		
Asp	Gly	Pro	Pro	Gln	Met	Arg	Pro	Tyr	His	Thr	lle	Ile	Glu	Ile	Ala
		115					120					125			
Glu	His	Lys	Arg	Lys	Gly	Ser	Leu	Lys	Val	Arg	Lys	Trp	Arg	Ser	11e
	130					135					140				
Phe	Asn	Leu	Gly	Arg	Ser	Gly	His	Glu	Thr	Lys	Arg	Lys	Leu	Pro	Arg
145					150					155					160
Gly	Ala	Glu	Asp	Arg	Glu	Asp	Lys	Ser	Asn	Lys	Gly	Thr	Leu	Arg	Pro
				165					170					175	
Ala	Lys	Ser	Met	Gly	Ser	Leu	Ser	Ala	Ala	Ala	Gly	Ala	Ser	Asp	Glu
			180					185					190		
Pro	Glu	Gly	Leu	Val	Gly	Pro	Ser	Ser	Pro	Arg	Pro	Ser	Pro	Leu	Leu
		195					200					205			
Pro	Glu	Ser	Leu	Glu	Asn	Asp	Ser	He	Glu	Ala	Ala	Glu	Gly	Glu	Gln
	210					215					220				
Glu	Pro	Glu	Ala	Glu	Ala	Leu	Gly	Gly	Thr	Asn	Ser	Glu	Pro	Gly	Thr
225					230					235					240
Pro	Arg	Ala	Gly	Arg	Ser	Ala	He	Arg	Ala	Gly	Gly	Ser	Ser	Arg	Ala
				245					250					255	
Glu	Arg	Cys	Ala	Gly	Val	His	Пe	Ser	Asp	Pro	Tyr	Asn	Va]	Asn	Leu
			260					265					270		
Pro	Leu	His	He	Thr	Ser	He	Leu	Ser	Val	Pro	Pro	Asn	11e	11e	Ser
		275					280					285			
Λsn	Val	Ser	Leu	Ala	Arg	Leu	Thr	Arg	Gly	Leu	Glu	Cys	Pro	Ala	Leu
	290					295					300				
Gln	His	Arg	Pro	Ser	Pro	Ala	Ser	Gly	Pro	G1 y	Pro	Gly	Pro	Gly	Leu
305					310					315					320

Gly Pro Gly Pro Pro Asp Glu Lys Leu Glu Ala Ser Pro Ala Ser Ser Pro Leu Ala Asp Ser Gly Pro Asp Asp Leu Ala Pro Ala Leu Glu Asp Ser Leu Ser Gln Glu Val Gln Asp Ser Phe Ser Phe Leu Glu Asp Ser Ser Ser Ser Glu Pro Glu Trp Val Gly Ala Glu Asp Gly Glu Val Ala Gln Ala Glu Ala Ala Gly Ala Ala Phe Ser Pro Gly Glu Asp Asp Pro Gly Met Gly Tyr Leu Glu Glu Leu Leu Gly Val Gly Pro Gln Val Glu Glu Phe Ser Val Glu Pro Pro Leu Asp Asp Leu Ser Leu Asp Glu Ala Gln Phe Val Leu Ala Pro Ser Cys Cys Ser Val Asp Ser Ala Gly Pro 'Arg Pro Glu Val Glu Glu Glu Asn Gly Glu Glu Val Phe Leu Ser Ala Tyr Asp Asp Leu Ser Pro Leu Leu Gly Leu Leu Gln Pro Gly Trp Gly His Arg Ser His Ser Ser Glu Gly Gln Cys Leu Arg Ile Lys Ala Val Phe Leu

<210> 3986

<211> 308

<212> PRT

<213> Homo sapiens

<400> 3986

Met Lys Met Glu Glu Met Ser Leu Ser Gly Leu Asp Asn Ser Lys Leu

1 5 10 15

Glu Ala Ile Ala Gln Glu Ile Tyr Ala Asp Leu Val Glu Asp Ser Cys
20 25 30

Leu	Gly	Phe	Cys	Phe	Glu	Val	His	Arg	Ala	Val	Lys	Cys	Gly	Tyr	Phe
		35					40					45			
Phe	Leu	Asp	Asp	Thr	Asp	Pro	Asp	Ser	Met	Lys	Asp	Phe	Glu	He	Val
	50					55					60				
	Gln	Pro	Gly	Leu	Asp	He	Phe	Gly	Gln		Phe	Λsn	Gln	Trp	
65			_		70				~	75					80
Ser	Lys	Glu	Cys		Cys	Pro	Asn	Cys		Arg	Ser	ile	Ala		Ser
A ~-	Dha	A1.	Duc	85	Lau	C1	1	Cua	90	C1	Mat	C1	A 200 cm	95	Com
Arg	rne	Ala	100	nis	Leu	GIU	Lys	105	Leu	GIY	мет	Gly	110	ASII	ser
Ser	Arg	He		Aen	Ara	Ara	He		Aen	Ser	Asn	Asn		Asn	Lve
501	m g	115	Mid	ASII	ni S	AI S	120	Mid	non	501	non	125	MC C	АЗП	LyS
Ser	Glu	Ser	Asp	Gln	Glu	Asp		Asp	Asp	Πe	Asn		Asn	Asp	Trp
	130					135			•		140	•		•	•
Ser	Tyr	Gly	Ser	Glu	Lys	Lys	Ala	Lys	Lys	Arg	Lys	Ser	Asp	Lys	Asn
145					150					155					160
Pro	Asn	Ser	Pro	Arg	Arg	Ser	Lys	Ser	Leu	Lys	His	Lys	Asn	Gly	Glu
				165					170					175	
Leu	Ser	Asn	Ser	Asp	Pro	Phe	Lys	Tyr	Asn	Asn	Ser	Thr	Gly	Ile	Ser
			180					185					190		
Tyr	Glu	Thr	Leu	Gly	Pro	Glu	Glu	Leu	Arg	Ser	Leu	Leu	Thr	Thr	Gln
		195					200					205			
Cys		Val	Пе	Ser	Glu		Thr	Lys	Lys	Met		Thr	Arg	Ser	Leu
	210	D	61		TI	215	61	61			220	17 7		7.1	T
	Cys	Pro	GIn	III S		Asp	Gly	GIn	Arg		I hir	val	Arg	116	
225 Pho	Lou	Gly	Pro	Sor	230	·Val	Lou	Pro	Glu	235	Glu	Sor	Sor	Lou	240
THE	Leu	Oly	110	245	Mia	1 (1)	Leu	110	250	101	Olu	261	261	255	nsp
Asn	Asp	Ser	Phe		Met	Thr	Asp	Ser		Ala	Leu	lle	Ser		Leu
			260					265					270	6	
Gln	Trp	Asp		Ser	Ser	Asp	Leu		Pro	Ser	Asp	Ser		Ser	Ser
		275					280					285			
Lys	Thr	Ser	Glu	Asn	Gln	Gly	Trp	Gly	Leu	Gly	Thr	Asn	Ser	Ser	Glu
	290					295					300				
Ser	Arg	Lys	Thr												
305															

```
<210> 3987
<211> 153
<212> PRT
<213> Homo sapiens
<400> 3987
Met Ala Lys Lys Ile Val Leu Ala Phe Ala Asp Gln Cys Asn Asn Gln
                  5
                                      10
Leu Ala Asn Ala Ala Val Ser Ser Asp Ser Tyr Val Leu Cys Asn Ile
                                 25
Leu Arg Thr Gln Phe Phe Phe Phe Leu Phe Val Cys Leu Phe Phe Glu
        35
                             40
                                                  45
Ala Glu Ser Arg Ser Val Thr Gln Val Gly Val Gln Trp Arg His Leu
                         55
Gly Ser Leu Tyr Ala Pro Pro Pro Arg Phe Thr Pro Phe Ser Cys Leu
                     70
Ser Leu Pro Ser Ser Trp Asp Cys Arg Cys Leu Pro Pro Cys Pro Ala
                 85
                                      90
Asp Phe Phe Cys Ile Phe Ser Gly Asp Gly Ile Ser Pro Cys Trp Pro
            100
                                105
Gly Trp Ser Arg Ser Pro Asp Leu Met Ser His His Thr Arg Pro Gly
        115
                            120
                                                 125
Thr Gln Phe Leu Ile Arg Leu Val Leu Phe Leu Ile Phe Ser Gln Val
    130
                        135
                                             140
Trp Leu Ile Leu Val Leu Phe Phe Phe
                    150
```

<211> 146

<212> PRT

<213> Homo sapiens

<400> 3988

```
Met Ser His Arg Ala Arg Leu Leu Phe Phe Leu Arg Cys Ser Leu
 1
                  5
                                     10
Thr Leu Leu Pro Arg Leu Glu Cys Ser Gly Val 11e Ser Ala His Cys
                                 25
             20
Ser Arg Ser Leu Leu Gly Ser Asn Asp Ser Pro Ala Ser Ala Ser Gln
                             40
                                                 45
Val Ala Gly Ile Thr Gly Ala Cys His His Ala Gln Leu Ile Phe Val
                         55
                                             60
Phe Leu Val Glu Met Gly Phe His His Val Gly Gln Ala Gly Leu Glu
 65
                     70
                                         75
Leu Leu Thr Ser Gly Asp Pro Pro Thr Ser Ala Ser Gln Ser Ala Gly
                 85
                                     90
lle Thr Gly Val Ser Asn Leu Ala Arg Pro Gly Ala Val Thr Phe Lys
            100
                                105
                                                     110
Ala Arg Arg Pro Glu Arg Arg Leu Val Gln Arg Ser Gln Gly Ser Glu
                            120
                                                 125
Gly Leu Arg Pro Gly Arg Gln Glu Pro Gly Asp Met Asp Ile Cys Glu
                        135
                                            140
Gly Glu
145
<210> 3989
<211> 609
<212> PRT
<213> Homo sapiens
<400> 3989
Met Glu Ala Glu Phe Tyr Met Val Ile Leu Thr Cys Leu Ile Phe Arg
 1
                                     10
Asn Ser Glu Gly Phe Gln Ile Val His Val Gln Lys Gln Gln Cys Leu
                                 25
Phe Lys Asn Glu Lys Val Val Val Gly Ser Cys Asn Arg Thr 11e Gln
         35
                             40
                                                  45
```

Asn Gln Gln Trp Met Trp Thr Glu Asp Glu Lys Leu Leu His Val Lys

Ser	Ala	Leu	Cys	Leu	Ala	He	Ser	Asn	Ser	Ser	Arg	Gly	Pro	Ser	Arg
65					70					75					80
Ser	Ala	lle	Leu	Asp 85	Arg	Cys	Ser	Gln	Аlа 90	Pro	Arg	Trp	Thr	Cys 95	Tyr
Asp	Gln	Glu	Gly	Phe	Leu	Glu	Val	Glu	Asn	Ala	Ser	Leu	Phe	Leu	Gln
			100					105					110		
Lys	Gln	Gly 115	Ser	Arg	Val	Val	Val 120	Lys	Lys	Λla	Arg	Lys 125	Tyr	Leu	His
Ser	Trp	Met	Lys	lle	Asp	Val	Asn	Lys	Glu	Gly	Lys	Leu	Val	Asn	Glu
	130					135					140				
Ser	Leu	Cys	Leu	Gln	Lys	Ala	Gly	Leu	Gly	Ala	Glu	Val	Ser	Val	Arg
145					150					155					160
Ser	Thr	Arg	Asn	Thr 165	Ala	Pro	Pro	Gln	11e 170	Leu	Thr	Thr	Phe	Asn 175	Ala
Val	Pro	Asp	G1 v		Val	Phe	Leu	lle		Asn	Thr	Thr	Glu		Phe
			180					185	0				190		
lle	Arg	Asn	Ala	Ala	Glu	Asn	Tyr		Gln	Asn	Ser	Ser	Glu	Arg	Gln
		195					200					205			
His	Pro	Asn	Leu	His	Met	Thr	Gly	lle	Thr	Asp	Thr	Ser	Trp	Val	Leu
	210					215					220				
Ser	Thr	Thr	Gln	Pro	Phe	Ser	Ser	Thr	Thr	Glu	Glu	Thr	Gly	Leu	Ala
225					230					235					240
Glu	Pro	Glu	Arg	Cys	Asn	Phe	Thr	Leu	Ala	Glu	Ser	Lys	Ala	Ser	Ser
				245					250					255	
His	Ser	Va]	Ser	lle	Gln	Trp	Arg	He	Leu	Gly	Ser	Pro	Cys	Asn	Phe
			260					265					270		
Ser	Leu	He	Tyr	Ser	Ser	Asp	Thr	Leu	Gly	Ala	Ala	Leu	Cys	Pro	Thr
		275					280					285			
Phe	Arg	He	Asp	Asn	Thr	Thr	Tyr	Gly	Cys.	Asn	Leu	Gln	Asp	Leu	Gln
	290					295					300				
Ala	Gly	Thr	He	Tyr	Asn	Phe	Arg	lle	He	Ser	Leu	Asp	Glu	Glu	Arg
305					310					315					320
Thr	Val	Val	Leu	Gln	Thr	Asp	Pro	Leu	Pro	Pro	Ala	Arg	Phe	Gly	Val
				325					330					335	
Ser	Lys	Glu	Lys	Thr	Thr	Ser	Thr	Ser	Leu	His	Val	Trp	Trp	Thr	Pro
			340					345					350		

Ser	Ser	Gly	Lys	Val	Thr	Ser	Tyr	Glu	Val	Gln	Leu	Phe	Asp	Glu	Asn
		355					360					365			
Asn	Gln	Lys	He	Gln	Gly	Val	GIn	He	Gln	Glu	Ser	Thr	Ser	Trp	Asn
	370					375					380				
Glu	Tyr	Thr	Phe	Phe	Asn	Leu	Thr	Ala	Gly	Ser	Lys	Tyr	Asn	Пе	Ala
385					390					395					400
He	Thr	Ala	Val	Ser	Gly	Gly	Lys	Arg	Ser	Phe	Ser	Val	Tyr	Thr	Asn
				405					410					415	
Gly	Ser	Thr	Val	Pro	Ser	Pro	Val	Lys	Asp	lle	Gly	Ile	Ser	Thr	Lys
			420					425					430		
Ala	Asn	Ser	Leu	Leu	He	Ser	Trp	Ser	His	Gly	Ser	Gly	Asn	Val	Glu
		435					440					445			
Arg	Tyr	Arg	Leu	Val	Leu	Met	Asp	Lys	Gly	lle	Leu	Val	His	Gly	Gly
	450					455					460				
Val	Val	Asp	Lys	His	Ala	Thr	Ser	Tyr	Ala	Phe	His	Gly	Leu	Thr	Pro
465					470					475					480
Gly	Tyr	Leu	Tyr	Asn	Leu	Thr	Val	Met	Thr	Glu	Ala	Ala	Gly	Leu	Gln
				485					490					495	
Asn	Tyr	Arg	Trp	Lys	Leu	Val	Arg	Thr	Ala	Pro	Met	Glu	Val	Ser	Asn
			500					505					510		
Leu	Lys	Val	Thr	Asn	Asp	Gly	Ser	Leu	Thr	Ser	Leu	Lys	Val	Lys	Trp
		515					520					525			
Gln	Arg	Pro	Pro	G1y	Asn	Val	Asp	Ser	Tyr	Asn	lle	Thr	Leu	Ser	His
	530					535					540				
Lys	G1 y	Thr	He	Lys	Glu	Ser	Arg	Val	Leu	Ala	Pro	Trp	He	Thr	Glu
545					550					555					560
Thr	His	Phe	Lys	Glu	Leu	Val	Pro	Gly	Arg	Leu	Tyr	Gln	Val	Thr	Val
				565					570					575	
Ser	Cys	Val	Ser	G1 y	Glu	Leu	Ser	Ala	Gln	Lys	Met	Ala	Val	Gly	Arg
			580					585					590		
Thr	Cys	Glu	Ser	Trp	Ala	Pro	Glu	Cys	Ser	Leu	Val	Ala	Gln	Пe	Thr
		595					600					605			
Leu															

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<210> 3990
<211> 175
<212> PRT
<213> Homo sapiens
<400> 3990
Met Trp Trp His Leu Cys Thr His Ser Ala Val His Pro Pro Thr Pro
1
                                    10
Ser Ser Phe Lys Arg His Ser Ser Pro Gln Lys Lys Pro Pro Val Leu
            20
                                 25
                                                     30
Ile Lys Gln Leu Pro Leu Leu Gly Ile Pro Gln Ala Pro Leu Leu Gly
                            40
                                                 45
Ser Glu Glu Gly Leu Ala Ser Glu Arg Ser Ser Asp Asn Lys Glu Ser
    50
                         55
Gly Thr His Cys Trp Ser Arg Pro Gly Leu Val Phe His Pro Ala Glu
                     70
                                         75
Val Ala Glu Pro Gly Gly Ser Gly Ser Ala Thr Gly Glu Pro His Ala
                                     90
Cys Arg Arg Ser Pro Ala Pro Pro Arg Ala Ser Pro Pro Gly Gly Ser
            100
                                105
                                                    110
Arg Glu Leu Ser Arg Thr Arg Arg Gly Ala Gly Gly Lys Gln Trp Leu
                           120
Arg Ala Ala Asp Lys Pro His Val Asp Pro Arg Pro Leu Ser Leu Trp
   130
                        135
Val Gly Leu Gly Asn Trp Arg Gly Gly Arg Met 11e Gly Asn Met Lys
145
                   150
                                       155
Thr Ala Arg Pro Gly Trp Ser Ser Gly Lys Arg Arg His Gly His
                165
                                    170
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<211> 134

<212> PRT

<213> Homo sapiens

<400> 3991

Met Tyr Leu Val Ala Leu Thr Gly Pro Ser Leu Tyr Asn Pro Phe Leu 1 5 10 Thr Ser Ser Lys Pro Pro Ser Ser Leu Pro Leu Lys Phe Leu Phe Phe 20 25 30 Phe Asn Pro Leu Gly Leu Leu 11e Tyr His 11e Pro Gln Val Glu Pro 40 45 Arg Asp Leu Asp Phe Ser Thr Ser His Gly Ala Val Ser Ala Thr Pro 55 60 Pro Ala Pro Thr Leu Val Ser Gly Asp Pro Trp Tyr Pro Trp Tyr Asn 65 70 75 80 Trp Lys Gln Pro Pro Glu Arg Glu Leu Ser Arg Leu Arg Arg Leu Tyr 90 Gln Gly His Leu Gln Glu Glu Ser Gly Pro Pro Pro Glu Ser Met Pro 100 105 110 Lys Met Pro Pro Arg Thr Pro Ala Glu Ala Ser Ser Thr Gly Gln Thr 115 120 125 Gly Pro Gln Ser Ala Leu 130

<210> 3992

<211> 173

<212> PRT

<213> Homo sapiens

<400> 3992

Met Leu IIe Asn Leu Phe Ser Val Phe Arg Thr Leu Ser Phe Val Ser I 5 10 15

Cys Ala Thr Gln Met Phe Phe Phe Leu Gly Phe Ala Val Thr Asn Cys
20 25 30

Leu Leu Gly Val Met Gly Tyr Asp Arg Tyr Ala Ala 11e Cys Gln
35 40 45

Pro Leu Gln Tyr Ala Val Leu Met Ser Trp Arg Val Cys Gly Gln Leu 50 55 60

He Ala Thr Cys lle lle Ser Gly Phe Leu lle Ser Leu Val Gly Thr 65 70 75 80

Thr Phe Val Phe Ser Leu Pro Phe Cys Gly Ser Asn Lys Val Asn His Tyr Phe Cys Asp Ile Ser Pro Val Ile Arg Leu Ala Cys Ala Asp Ser Tyr lle Gly Glu Leu Val Ile Phe Ile Phe Gly Val Leu Val Leu Val Val Pro Leu Ile Phe Ile Cys Ile Ser Tyr Gly Phe Ile Val Arg Thr lle Leu Lys Ile Pro Ser Ala Glu Gly Lys Gln Lys Ala Phe Ser Thr Cys Ala Ser His Leu lle Val Val Ile Val His Tyr Gly

<210> 3993

<211> 324

<212> PRT

<213> Homo sapiens

<400> 3993

Met Asn His Met Ser Ala Ser Leu Lys Ile Ser Asn Ser Ser Lys Phe Gln Val Ser Glu Phe lle Leu Leu Gly Phe Pro Gly lle His Ser Trp Gln His Trp Leu Ser Leu Pro Leu Ala Leu Leu Tyr Leu Ser Ala Leu Ala Ala Asn Thr Leu IIe Leu IIe IIe IIe Trp Gln Asn Pro Ser Leu Gln Gln Pro Met Tyr lle Phe Leu Gly lle Leu Cys Met Val Asp Met . 75 Gly Leu Ala Thr Thr 11e 11e Pro Lys 11e Leu Ala 11e Phe Trp Phe

Asp Ala Lys Val lle Ser Leu Pro Glu Arg Phe Ala Gln lle Tyr Ala

lle His Phe Phe Val Gly Met Glu Ser Gly lle Leu Leu Cys Met Ala

Phe	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His	Pro	Leu	Arg	Tyr	Pro	Ser	He
	130					135					140				
Val	Thr	Ser	Ser	Leu	He	Leu	Lys	Ala	Thr	Leu	Phe	Met	Val	Leu	Arg
145					150					155					160
Asn	Gly	Leu	Phe	Val	Thr	Pro	Val	Pro	Val	Leu	Ala	Ala	Gln	Arg	Asp
				165					170					175	
Tyr	Cys	Ser	Lys	Ser	Glu	He	Glu	His	Cys	Leu	Cys	Ser	Asn	Leu	Gly
			180					185					190		
Val	Thr	Ser	Leu	Ala	Cys	Asp	Asp	Arg	Arg	Pro	Asn	Ser	lle	Cys	Gln
		195					200					205			
Leu	Val	Leu	Ala	Trp	Leu	Gly	Met	Gly	Ser	Asp	Leu	Ser	Leu	11e	11e
	210					215					220				
Leu	Ser	Tyr	He	Leu	11e	Leu	Tyr	Ser	Val	Leu	Arg	Leu	Asn	Ser	Ala
225					230					235					240
Glu	Ala	Ala	Ala	Lys	Ala	Leu	Ser	Thr	Cys	Ser	Ser	His	Leu	Thr	Leu
				245					250					255	
Ile	Leu	Phe	Phe	Tyr	Thr	He	Val	Val	Val	He	Ser	Val	Thr	His	Leu
			260					265					270		
Thr	Glu	Met	Lys	Ala	Thr	Leu	lle	Pro	Val	Leu	Leu	Asn	Val	Leu	His
		275					280					285			
Asn	He	He	Pro	Pro	Ser	Leu	Asn	Pro	Thr	Val	Tyr	Ala	Leu	Gln	Thr
	290					295					300				
Lys	Glu	Leu	Arg	Ala	Ala	Phe	Gln	Lys	Val	Leu	Phe	Ala	Leu	Thr	Lys
305					310					315					320
Glu	He	Arg	Ser												

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3994

Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys Cys Val Asn Thr $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gln	Pro	Gly	Tyr 20	Glu	Cys	Tyr	Cys	Lys 25	Gln	Gly	Phe	Tyr	Tyr 30	Asp	Gly
Asn	Leu	Leu 35	G1u	Cys	Val	Asp	Val 40	Asp	G] u	Cys	Leu	Asp 45	Glu	Ser	Asn
Cys	Arg 50	Asn	Gly	Val	Cys	Glu 55	Asn	Thr	Arg	Gly	Gly 60	Tyr	Arg	Cys	Ala
Cys 65	Thr	Pro	Pro	Ala	Glu 70	Tyr	Ser	Pro	Ala	Gln 75	Arg	Gln	Cys	Leu	Ser 80
Pro	Glu	Glu	Met	Asp 85	Val	Asp	Glu	Cys	G1n 90	Asp	Pro	Ala	Ala	Cys 95	Arg
Pro	Gly	Arg	Cys 100	Val	Asn	Leu	Pro	Gly 105	Ser	Tyr	Arg	Cys	Glu 110	Cys	Arg
Pro	Pro	Trp 115	Val	Pro	Gly	Pro	Ser 120	Gly	Arg	Asp	Cys	Gln 125	Leu	Pro	Glu
Ser	Pro 130	Ala	Glu	Arg	Ala	Pro 135	Glu	Arg	Arg	Asp	Val 140	Cys	Trp	Ser	Gln
Arg 145	Gly	Glu	Asp	Gly	Met 150	Cys	Ala	Gly	Pro	Leu 155	Ala	Gly	Pro	Ala	Leu 160
Thr	Phe	Asp	Asp	Cys 165	Cys	Cys	Arg	Gln	Gly 170	Arg	Gly	Trp	Gly	Ala 175	GIn
Cys	Arg	Pro	Cys 180	Pro	Pro	Arg	Gly	Ala 185	Gly	Ser	His	Cys	Pro 190	Thr	Ser
Gln	Ser	Glu 195	Ser	Asn	Ser	Phe	Trp 200	Asp	Thr	Ser	Pro	Leu 205	Leu	Leú	G1 y
Lys	Pro 210	Pro	Arg	Asp	Glu	Asp 215	Ser	Ser	Glu	Glu	Asp 220	Ser	Asp	Glu	Cys
Arg 225	Cys	Val	Ser	Gly	Arg 230	Cys	Val	Pro	Arg	Pro 235	Gly	Gly	Ala	Val	Cys 240
Glu	Cys	Pro	Gly	Gly 245	Phe	Gln	Leu	Asp	Ala 250	Ser	Arg	Ala	Arg	Cys 255	Val
Asp	lle	Asp	Glu 260	Cys	Arg	Glu	Leu	Λsn 265	Gln	Arg	Gly	Pro	Leu 270	Cys	Lys
Ser	Glu	Arg 275	Cys	Val	Asn	Thr	Ser 280	Gly	Ser	Phe	Arg	Cys 285	Val	Cys	Lys
Ala															

Arg Arg 305

<210> 3995

<211> 450

<212> PRT

<213> Homo sapiens

<400> 3995

Met Ile Leu Leu Val Asn Leu Phe Val Leu Leu Ser Val Val Cys Val
1 5 10 15

Leu Leu Asn Leu Ala Gly Phe 11e Leu Gly Cys Gln Gly Ala Gln Phe 20 25 30

Val Ser Ser Val Pro Arg Cys Asp Leu Val Asp Leu Gly Glu Gly Lys 35 40 45

Ile Cys Phe Cys Cys Glu Glu Phe Gln Pro Ala Lys Cys Thr Asp Lys
50 55 60

Glu Asn Ala Leu Lys Leu Phe Pro Val Gln Pro Cys Ser Ala Val His
65 70 75 80

Leu Leu Lys Lys Val Leu Phe Ala Leu Cys Ala Leu Asn Ala Leu 85 90 95

Thr Thr Thr Val Cys Leu Val Ala Ala Ala Leu Arg Tyr Leu Gl
n 11e 100 105 110

Phe Ala Thr Arg Arg Ser Cys Ile Asp Glu Ser Gln Ile Ser Ala Glu 115 120 125

Glu Ala Glu Asp His Gly Arg Ile Pro Asp Pro Asp Asp Phe Val Pro
130 135 140

Pro Val Pro Pro Pro Ser Tyr Phe Ala Thr Phe Tyr Ser Cys Thr Pro 145 150 155 160

Arg Met Asn Arg Arg Met Val Gly Pro Asp Val Ile Pro Leu Pro His
165 170 175

lle Tyr Gly Ala Arg Ile Lys Gly Val Glu Val Phe Cys Pro Leu Asp 180 185 190

Pro Pro Pro Pro Tyr Glu Ala Val Val Ser Gln Met Asp Gln Glu Gln 195 . 200 205

Gly	Ser	Ser	Phe	Gln	Met	Ser	Glu	Gly	Ser	Glu	Ala	Ala	Val	He	Pro
	210					215					220				
Leu	Asp	Leu	Gly	Cys	Thr	Gln	Val	Thr	Gln	Asp	Gly	Asp	He	Pro	Asn
225					230					235					240
He	Pro	Ala	Glu	Glu	Asn	Ala	Ser	Thr	Ser	Thr	Pro	Ser	Ser	Thr	Leu
				245					250					255	
Val	Arg	Pro	He	Arg	Ser	Arg	Arg	Ala	Leu	Pro	Pro	Leu	Arg	Thr	Arg
			260					265					270		
Ser	Lys	Ser	Asp	Pro	Val	Leu	His	Pro	Ser	Glu	Glu	Arg	Ala	Ala	Pro
		275					280					285			
Val	Leu	Ser	Cys	Glu	Ala	Ala	Thr	Gln	Thr	Glu	Arg	۸rg	Leu	Asp	Leu
	290					295					300				
Ala	Ala	Val	Thr	Leu	Arg	Arg	Gly	Leu	Arg	Ser	Arg	Ala	Ser	Arg	Cys
305					310					315					320
Arg	Pro	Arg	Ser	Leu	lle	Asp	Tyr	Lys	Ser	Tyr	Met	Asp	Thr	Lys	Leu
				325					330					335	
Leu	Val	Ala	Arg	Phe	Leu	Glu	Gln	Ser	Ser	Cys	Thr	Met	Thr	Pro	Asp
			340					345					350		
He	His	Glu	Leu	Val	Glu	Asn	He	Lys	Ser	Val	Leu	Lys	Ser	Asp	Glu
		355					360					365			
Glu	His	Met	Glu	Glu	Ala	11e	Thr	Ser	Ala	Ser	Phe	Leu	Glu	Gln	He
	370					375					380				
Met	Ala	Pro	Leu	Gln	Pro	Ser	Thr	Ser	Arg	Ala	His	Arg	Leu	Pro	Ser
385					390					395					400
Arg	Arg	Gln	Pro	Gly	Leu	Leu	His	Leu	Gln	Ser	Cys	Gly	Asp	Leu	His
				405					410					415	
Thr	Phe	Thr	Pro	Ala	Gly	Arg	Pro	Arg	Ala	Glu	Arg	Arg	Pro	Arg	Arg
			420					425					430		
Val	Glu		Glu	Arg	Pro	His		Leu	He	G1 y	Val		Arg	Glu	Thr
		435					440					445			
Val	Leu														

450

<211> 111

<212> PRT <213> Homo sapiens <400> 3996 Met Phe Lys Cys Leu 11e Phe Phe Val 11e Met Ser Gly 11e Met 11e 10 Val Leu Leu Ala Glu Ser Gln Ala Arg Val Asp Thr His 11e Ser Asn 25 Ser Lys Ala Ser Ala Leu Phe Met Met Cys Gln Tyr Pro Pro Thr His 35 40 45 Pro Trp Ile Leu Pro Pro Pro Pro Leu Phe Tyr Arg Asn Ala Asn Thr 55 60 Val Ser Cys Val Asn Ala Arg Met Tyr Ser Leu Ser Leu Leu Glu Ala 70 65 75 Trp Val Arg Pro Leu Phe Gly Arg Met Glu Leu Pro Ser Phe Leu Leu 90 85 Val Ser Ser Leu Ser Pro Leu Leu Leu Gln Pro Cys His Gly Ser 105 110 <210> 3997 <211> 347 <212> PRT <213> Homo sapiens <400> 3997 Met Ser Thr Ser Ser Tyr Asn Leu Cys Gln Gln Lys Lys Arg Arg Ala 5 10 Leu Leu Arg Ala Ser Gly Val Lys Lys Ile Asp Val Glu Glu Lys His 20 25 30 Glu Leu Arg Ala Ile Arg Leu Ser Arg Glu Asp Cys Gly Cys Asp Cys 40 Arg Val Phe Cys Asp Pro Asp Thr Cys Thr Cys Ser Leu Ala Gly Ile

55

70

Lys Cys Gln Val Asp Arg Met Ser Phe Pro Cys Gly Cys Thr Lys Glu

60

80

75

50

Gly	Cys	Ser	Asn		Ala	Gly	Arg	Ile		Phe	Asn	Pro	He	_	Val
				85					90					95	
Arg	Thr	His	Phe	Leu	His	Thr	Пe	Met	Lys	Leu	Glu	Leu	Glu	Lys	Asn
			100					105					110		
Arg	Glu	Gln	Gln	He	Pro	Thr	Leu	Asn	Gly	Cys	His	Ser	Glu	He	Ser
		115					120					125			
Ala	His	Ser	Ser	Ser	Met	Gly	Pro	Val	Ala	His	Ser	Val	Glu	Tyr	Ser
	130					135					140				
He	Ala	Asp	Ser	Phe	Glu	lle	Glu	Thr	Glu	Pro	Gln	Ala	Ala	Val	Leu
145					150					155					160
His	Leu	Gln	Ser	Ala	Glu	Glu	Leu	Asp	Cys	Gln	Gly	Glu	Glu	Glu	Glu
				165					170					175	
Glu	G]u	Glu	Asp	Gly	Ser	Ser	Phe	Cys	Ser	Gly	Val	Thr	Asp	Ser	Ser
			180					185					190		
Thr	Gln	Ser	Leu	Ala	Pro	Ser	Glu	Ser	Asp	Glu	Glu	Glu	Glu	Glu	Glu
		195					200					205			
Glu	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Asp	Asp	Asp	Asp	Lys	G1 y	Asp	Gly
	210					215					220				
Phe	Val	Glu	Gly	Leu	Gly	Thr	His	Ala	Glu	Val	Val	Pro	Leu	Pro	Ser
225					230					235					240
Val	Leu	Cys	Tyr	Ser	Asp	Gly	Thr	Ala	Val	His	Glu	Ser	His	Ala	Lys
				245					250					255	
Asn	Ala	Ser	Phe	Tyr	Ala	Asn	Ser	Ser	Thr	Leu	Tyr	Tyr	Gln	Asn	Asp
			260					265					270		
Ser	Gly	Val	Pro	Cys	Asn	Ser	Leu	Tyr	Pro	Glu	His	Arg	Ser	Asn	His
		275					280					285			
Pro	Gln	Val	Glu	Phe	His	Ser	Tyr	Leu	Lys	Gly	Pro	Ser	Gln	Glu	Gly
	290					295					300				
Phe	Val	Ser	Ala	Leu	As'n	Gly	Asp	Ser	His	He	Ser	Glu	His	Pro	Ala
305					310					315					320
Glu	Asn	Ser	Leu	Ser	Leu	Ala	Glu	Lys	Ser	He	Leu	His	Glu	Glu	Cys
				325					330					335	
He	Lys	Ser	Pro	Val	Val	Glu	Thr	Val	Pro	Val					
			340					345							

<211> 111 <212> PRT <213> Homo sapiens <400> 3998 Met Gly Glu Arg Lys Gly Ile Cys Glu Gly Asp Trp Leu Ala Lys Pro 10 Lys Ile Phe Leu Met Trp Pro Tyr Ile Glu Lys Ala Cys Val Phe Trp 20 25 30 Thr Arg Ala Ile Lys Gly Asn Ser Leu Asp Leu Lys Leu Leu Lys Ile 40 45 Asn Ser Ala Gln Ile Ala Leu Gly Ser Gln Arg Pro Cys Trp Ser Ser 50 55 Lys Gly Ser Val Gln Ser Val Val Ser Lys Asp Arg Ser Gln Leu Ser Gln Glu Ser Glu Tyr Lys Tyr Ser Glu Pro Ile Asn Arg Gln Ile Ile 85 90 lle Tyr Thr Met Ser Gln Pro Val Asp Gly Ile Ile Cys His His 100 105 110 <210> 3999 <211> 434 <212> PRT <213> Homo sapiens <400> 3999 Met Arg Val Thr Ala Pro Arg Thr Leu Leu Leu Leu Leu Trp Gly Ala 1 5 10 15 Val Ala Leu Thr Glu Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe 25 His Thr Ser Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Phe 11e Thr 35 40 45

Val Gly Tyr Val Asp Asp Thr Leu Phe Val Arg Phe Asp Ser Asp Ala

60

55

<210> 3998

Thr	Ser	Pro	Arg	Lys	Glu	Pro	Arg	Ala	Pro	Trp	lle	Glu	Gln	Glu	Gly
65					70					75					80
Pro	Glu	Tyr	Trp	Лѕр	Gln	Glu	Thr	Gln	He	Ser	Lys	Thr	Asn	Thr	Gln
				85					90					95	
Thr	Tyr	Arg	Glu	Ser	Leu	Arg	Asn	Leu	Arg	Gly	Tyr	Tyr	Λsn	Pro	Gly
			100					105					110		
Arg	Arg	Ser	Arg	Leu	Pro	He	Pro	His	Val	Arg	Pro	Gly	Ser	Pro	Arg
		115					120					125			
Val	Ser	Gly	Ser	Glu	He	Arg	Pro	Arg	Gly	Arg	Gly	Thr	Arg	Pro	Asp
	130					135					140				
Pro	Arg	Pro	Ala	Arg	Ala	Pro	Gly	Ala	Phe	Thr	Arg	Phe	His	Phe	Gln
145					150					155					160
Leu	Arg	Pro	Lys	Ser	Pro	Arg	Val	Gly	Arg	Gly	Gly	Ala	Gly	Leu	Gly
				165					170					175	
Gly	Thr	Gly	Leu	Thr	Ala	Gly	Ala	G] y	Pro	Gly	Ser	His	Thr	Leu	Gln
			180					185					190		
Ser	Met	Tyr	Gly	Cys	Asp	Val	Gly	Pro	Asp	Gly	Arg	Leu	Leu	Arg	Gly
		195					200					205			
His	Asn	Gln	Tyr	Ala	Tyr	Asp	Gly	Lys	Asp	Tyr	He	Ala	Leu	Asn	Glu
	210					215					220				
Asp	Leu	Arg	Ser	Trp	Thr	Ala	Ala	Asp	Thr	Ala	Ala	Gln	He	Thr	Gln
225					230					235					240
Arg	Lys	Trp	Glu	Ala	Ala	Arg	Val	Ala	Glu	Gln	Leu	Arg	Ala	Tyr	Leu
				245					250					255	
Glu	Gly	Glu	Cys	Val	Glu	Trp	Leu	Arg	Arg	Tyr	Leu	Glu		Gly	Lys
			260					265					270		
Glu	Thr		Gln	Arg	Ala	Asp		Pro	Lys	Thr	His		Thr	His	His
		275					280					285			
Pro		Ser	Asp	His	Glu		Thr	Leu	Arg	Cys	Trp	A]a	Leu	Gly	Phe
	290					295					300				
	Pro	Ala	Glu	He		Leu	Thr	Trp	Gln	Arg	Asp	G1 y	Glu	Asp	
305					310					315					320
Thr	Gln	Asp	Thr		Leu	Val	Glu	Thr		Pro	Ala	Gly	Asp		Thr
				325					330					335	
Phe	Gln	Lys		Ala	Ala	Val	Va]	Val	Pro	Ser	Gly	Glu		Gln	Arg
			340					345					350		

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu Arg Trp Glu Pro Ser Ser Gln Ser Thr Val Pro 11e Val Gly 11e Val Ala Gly Leu Ala Val Leu Ala Val Val Ile Gly Ala Val Val Ala Ala Val Met Cys Arg Arg Lys Ser Ser Gly Gly Lys Gly Gly Ser Tyr Ser Gln Ala Ala Cys Ser Asp Ser Ala Gln Gly Ser Asp Val Ser Leu

Thr Ala

<210> 4000

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4000

Met Lys Trp Val Glu Met Thr Ser His Trp Glu Lys Thr Met Ser Arg Arg Tyr Lys Lys Val Arg Gly Ala Gly Ala Pro Leu Gly Phe His Gly Ser Phe Leu Ser Ala Ser Ala His 11e Leu Ala Lys Cys Thr His Pro Val Ser Gln His Leu Arg Pro Leu Leu Pro Ala Thr Gln Ser Gly Pro Leu Pro Ala Asp Glu Leu Cys Leu Gly Pro Ala Ser Arg Ser Tyr Gly Gly Cys Leu Val Glu Pro Leu Ala Ser Pro Thr Gly Lys Asp Ala Val Pro Glu Arg His Pro Val Cys Pro Ala Arg Pro Met Leu Ala Pro Val Val Trp Gly Pro Cys Val Pro Glu Glu Gln Pro Trp His Leu Ser Gly

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Glu Gly Val Gly Arg Gly Pro Asn Ser Pro Thr Gln Ser Pro Ser Pro
    130
                        135
                                             140
His
145
<210> 4001
<211> 468
<212> PRT
<213> Homo sapiens
<400> 4001
Met Glu Leu Gly Leu Ser Trp Val Phe Leu Val Ala 11e Leu Glu Gly
                  5
                                      10
Val His Cys Glu Val Gln Leu Val Glu Ser Gly Gly Arg Leu Val Arg
             20
                                 25
Pro Gly Gly Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Asp Phe
                             40
                                                  45
Ser Tyr Tyr Trp Met Ala Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
     50
                         55
                                              60
Glu Trp Val Ala Asn lle Arg Lys Asp Gly Ser Asp Lys Tyr Tyr Val
                     70
                                          75
Asp Ser Val Lys Gly Arg Phe Ser Ile Ser Arg Asp Asn Ser Lys Asn
                 85
                                      90
Ser Leu Tyr Leu Gln Met Thr Ser Leu Arg Ala Asn Asp Thr Ala Val
            100
                                105
                                                     110
Tyr Tyr Cys Ala Thr Val Pro Asp Leu Asp Ser Asp Ser Phe Leu Trp
                            120
                                                 125
Gly Arg Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
    130
                        135
                                             140
Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
                    150
                                         155
Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
                165
                                    170
Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
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Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr
		195					200					205			
Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	He	Cys	Asn	Val	Asn
	210					215					220				
His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Lys	Val	Glu	Pro	Lys	Ser
225					230					235					240
Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu
				245					250					255	
Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu
			260					265					270		
Met	lle	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser
		275					280					285			
His	Glu	Asp	Pro	Glu	Va1	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu
	290					295					300				
Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	G1n	Tyr	Asn	Ser	Thr
305					310					315					320
Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn
				325					330					335	
Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro
			340					345					350		
He	Glu	Lys	Thr	He	Ser	Lys	Ala	Lys	G1 y	Gln	Pro	Arg	Glu	Pro	Gln
		355					360					365			
Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Asp	Glu	Leu	Thr	Lys	Asn	Gln	Val
	370					375					380				
Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	11e	Ala	Val
385					390					395					400
Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu		Asn	Tyr	Lys	Thr		Pro
				405					410					415	
Pro	Val	Leu		Ser	Asp	Gly	Ser		Phe	Leu	Tyr	Ser		Leu	Thr
			420					425					430		
Val	Gly		Ser	Arg	Trp	Gln		G1 y	Asn	Val	Phe		Cys	Ser	Val
		435					440					445			
Met		Glu	Gly	Leu	His	Asn	His	Tyr	Thr	Gln		Ser	Leu	Ser	Leu
_	450					455					460				
	Pro	Gly	Lys												
465															

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<210> 4002
<211> 159
<212> PRT
<213> Homo sapiens
<400> 4002
Met Asp Met Gly Leu Lys Leu Gly His Pro Thr Leu Thr Gly Asn Trp
1
                  5
                                     10
                                                         15
Gln lle Ser Asp Pro Asn Ala Leu Ser Pro Pro Ser Pro Leu Thr Pro
                                25
Gln Pro Ala Ile Thr Lys Arg Pro Lys Ala Cys Phe Phe His Gln Pro
        35
                             40
                                                 45
Pro Ala Gln Phe Leu Phe Ser Thr Arg Lys Ala Gly Val Val Leu Thr
                         55
                                             60
Pro Tyr lle Pro Pro Ala Pro Arg Arg Ile Gly Phe Thr Val Gly Arg
                    70
                                         75
Val Ala lle Lys Pro Glu Pro Ser Gln Pro Thr Arg Ser Gln Arg Glu
                                     90
                 85
Lys Ala Arg Gly Gly Arg Thr Ser Val Val Leu Ser 11e Asn Trp Leu
                                105
Trp Gly Gly Met Gly Trp Ser Ser His Leu Ala Ser His Leu Val
        115
                            120
                                                125
Met Arg Thr Ser Lys Asn Leu Gln Gln Glu Arg Ser Phe His Ser Lys
    130
                        135
                                            140
Val Lys Gly Arg Gly Ala Ala Ala Leu Gly Leu Pro Gly Arg Asn
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155

<210> 4003

145

<211> 169

<212> PRT

<213> Homo sapiens

150

<400> 4003

Met Ser Ala Pro Pro Ala Leu Gln lle Arg Glu Ala Asn Ala His Leu 10 Ala Ala Val His Arg Arg Ala Ala Glu Leu Glu Ala Arg Leu Asp Ala 25 Ala Glu Arg Thr Val His Ala Gln Ala Glu Arg Leu Ala Leu His Asp 40 45 Gln Gln Leu Arg Ala Ala Leu Asp Glu Leu Gly Arg Ala Lys Asp Arg 55 60 Glu Ile Ala Thr Leu Gln Glu Gln Leu Met Thr Ser Glu Ala Thr Val 65 70 75 80 His Ser Leu Gln Ala Thr Val His Gln Arg Asp Glu Leu Ile Arg Gln 85 90 Leu Gln Pro Arg Ala Glu Leu Leu Gln Asp Ile Cys Arg Arg Pro 100 105 110 Pro Leu Ala Gly Leu Leu Asp Ala Leu Ala Glu Ala Glu Arg Leu Gly 120 125 Pro Leu Pro Ala Ser Asp Pro Gly His Pro Pro Pro Gly Gly Pro Gly 135 140 Pro Pro Leu Asp Asn Ser Thr Gly Glu Glu Ala Asp Arg Asp His Leu 150 155 160 145 Gln Pro Ala Val Phe Gly Thr Thr Val 165

<210> 4004

<211> 266

<212> PRT

<213> Homo sapiens

<400> 4004

Met Met Ala Leu Trp Ser Leu Leu His Leu Thr Phe Leu Gly Phe Ser

1 5 10 15

Ile Thr Leu Leu Leu Val His Gly Gln Gly Phe Gln Gly Thr Ala Ala
20 25 30

11e Trp Pro Ser Leu Phe Asn Val Asn Leu Ser Lys Val Gln Glu 35 40 45

Ser	He	Gln	He	Pro	Asn	Asn	Gly	Ser	Ala	Pro	Leu	Leu	Val	Asp	Val
	50					55					60				
Arg	Val	Phe	Val	Ser	Asn	Val	Phe	Asn	Val	Asp	Пе	Leu	Arg	Tyr	Thr
65					70					75					80
Met	Ser	Ser	Met	Leu	Leu	Leu	Arg	Leu	Ser	Trp	Leu	Asp	Thr	Arg	Leu
				85					90					95	
Ala	Trp	Asn	Thr	Ser	Ala	His	Pro	Arg	His	Ala	He	Thr	Leu	Pro	Trp
			100					105					110		
Glu	Ser	Leu	Trp	Thr	Pro	Arg	Leu	Thr	He	Leu	Glu	Ala	Leu	Trp	Val
		115					120					125			
Asp	Trp	Arg	Asp	Gln	Ser	Pro	Gln	Ala	Arg	Val	Asp	Gln	Asp	Gly	His
	130					135					140				
Val	Lys	Leu	Asn	Leu	Ala	Leu	Thr	Thr	Glu	Thr	Asn	Cys	Asn	Phe	Glu
145					150					155					160
Leu	Leu	His	Phe	Pro	Arg	Asp	His	Ser	Asn	Cys	Ser	Leu	Ser	Phe	Tyr
				165					170					175	
Ala	Leu	Ser	Asn	Thr	Gly	Ala	Asp	Arg	Ala	Gly	Ala	Ala	Gly	Leu	Arg
			180					185					190		
Arg	Gly	Gly	Gly	Arg	Trp	G1 y	Arg	G1y	Thr	P.ro	Arg	Ser	Val	Val	Gln
		195					200					205			
Gly	Gln	Gly	Ala	Gly	Gln	Gly	Glu	Gly	Ala	Lys	Ala	Asp	Arg	Arg	Arg
	210					215					220				
Thr	Pro	Arg	Ser	Val	Phe	Arg	Ala	Val	Tyr	Pro	Arg	Leu	Arg	Arg	Ala
225					230					235					240
Ala	Pro	Ala	Leu	Pro	Leu	Arg	Pro	Pro	Leu	Glu	Trp	Gln	Pro	He	Ser
				245					250					255	
Val	Leu	Ser	G1 v	Ser	Leu	Arg	Ala	Pro	Leu						
			260					265							

<210> 4005

<211> 519

<212> PRT

<213> Homo sapiens

<400> 4005

M	et	Asp	Trp	Thr	Trp	Arg	Phe	Leu	Phe	Val	Val	Ala	Ala	Ala	Thr	Gly
	1				5					10					15	
V	al	Gln	Ser	Gln	Val	Gl'n	Val	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys
				20					25					30		
P.	ro	Gly	Ser	Ser	Val	Lys	Leu	Ser	Cys	Lys	Ala	Pro	Gly	Val	Thr	Leu
			35					40					45			
T	hr	Ser	Tyr	Ser	Leu	Thr	Trp	Val	Arg	Gln	Ala	Pro	Gly	Gln	Gly	Leu
		50					55					60				
G	lu	Trp	Met	Gly	Arg	He	Val	Pro	Thr	Va]	Gly	He	Ala	Thr	He	Gly
(65					70					75					80
G	l n	Asn	Phe	Lys	Gly	Arg	Va]	Thr	Пe	Thr	Ala	Asp	Lys	Ser	Thr	Arg
					85					90					95	
T	hr	Ala	Tyr	Leu	Glu	Val	Asn	Ser	Leu	Gly	Ser	Glu	Asp	Thr	Ala	Thr
				100					105					110		
T	yr	Tyr	Cys	Ala	Ser	Gly	Gln	Asp	Val	Asp	Phe	Arg	Arg	Gly	Val	Ala
			115					120					125			
Pl			Met	Trp	Gly	Gln	Gly	Thr	Met	Va]	lle	Va]	Ser	Ser	Ala	Ser
		130					135					140				
		Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr
	45					150					155					160
Se	er	Gly	Gly	Thr		Ala	Leu	Gly	Cys		Va]	Lys	Asp	Tyr		Pro
					165					170					175	
G	lu	Pro	Val		Val	Ser	Trp	Asn		G1 y	Ala	Leu	Thr		Gly	Val
		m.	151	180					185					190		
H	15	Ihr		Pro	Ala	Val	Leu		Ser	Ser	Gly	Leu		Ser	Leu	Ser
c		U. 1	195	TI.	17. 1	D	C	200	C		C.1	TI	205	T)	т	T)
56			vai	inr	vai	Pro		Ser	ser	Leu	GLY	Thr	GIN	Inr	lyr	Inr
C		210 Acn	Val	Acn	Hic	Lvc	215 Pro	Sor	Acn	Than	Lya	220 Val	Aan	Lus	A 22.05	Ve. 1
	ys 25	А\$П	val	ASII	1115	230	110	261	ASII	1111	235	Val	ASP	Lys	Arg	
		l en	Lve	The	Pro		Glv	Aen	The	The		Thr	Cve	Pro	Δκα	240 Cvs
O.	. u	1, Cu	rigo	1111	245	i.cu	017	пар	1111	250	111.5	1 11.1	Cis	110	255	CyS
p _i	ro	Glu	Pro	lvs		Cve	Asp	Thr	Pro		p_{ro}	Cys	Pro	Aro		Pro
	. •	J. G		260	~ ()	C 7 G	.1.5	1111	265	4 1 ()	110	0,0	130	270	6,3	0 . 1
G1	ln	Pro	lvs		Cvs	Asn	Thr	Pro		Pro	Cve	Pro	Ara		Pro	Glu

		275					280					285			
Pro	Lys	Ser	Cys	Asp	Thr	Pro	Pro	Pro	Cys	Pro	Arg	Cys	Pro	Аlа	Pro
	290					295					300				
Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys
305					310					315					320
Asp	Thr	Leu	Met	He	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val
				325					330					335	
Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Gln	Phe	Lys	Trp	Tyr	Val	Asp
			340					345					350		
Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Leu	Arg	Glu	Glu	Gln	Tyr
		355					360					365			
Asn	Ser	Thr	Phe	Arg	Val	Va]	Ser	Val	Leu	Thr	Va]	Leu	His	Gln	Asp
	370					375					380				
Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu
385					390					395					400
Pro	Ala	Pro	He	Glu	Lys	Thr	He	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg
				405					410					415	
Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys
			420					425					430		
Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp
		435					440					445			
He	Ala	Val	Glu	Trp	G] u	Ser	Asn	G] y	Gln	Pro	Glu	Asn	Asn	Tyr	Asn
	450					455					460				
Thr	Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser
465					470					475					480
Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	Gly	Asn	Пе	Phe	Ser
				485					490					495	
Cys	Ser	Val	Met	His	G] u	Ala	Leu	His	Asn	Arg	Tyr	Thr	Gln	Lys	Ser
			500					505					510		
Leu	Ser	Leu	Ser	Pro	Gly	Lys									
		515													

<210> 4006

<211> 186

<212> PRT

<213> Homo sapiens

<400> 4006

Met Ser Lys Ala Gln Cys lle Val Ala Asn Glu Ala Met Ala Pro Val

1 5 10 15

Val Asn Ser Ala Val Ser Asp Cys Pro Thr Leu Lys Thr Lys Leu Leu 20 25 30 .

Val Ser Asp Lys Ser Tyr Asp Gly Trp Leu Asp Phe Lys Lys Leu 11e 35 40 45

Gln Val Ala Pro Pro Lys Gln Thr Tyr Met Arg Thr Lys Ser Gln Asp 50 55 60

Pro Met Ala IIe Phe Phe Thr Lys Gly Thr Thr Gly Ala Pro Lys Met 65 70 75 80

Val Glu Tyr Ser Gln Tyr Gly Leu Gly Met Gly Phe Ser Gln Ala Ser

85 90 95

Arg Arg Trp Met Asp Leu Gln Pro Thr Asp Val Leu Trp Ser Leu Gly
100 105 110

Asp Ala Phe Gly Gly Ser Leu Ser Leu Ser Ala Val Leu Gly Thr Trp 115 120 125

Phe Gln Gly Ala Cys Val Phe Leu Cys His Met Pro Thr Phe Cys Pro 130 135 140

Glu Thr Val Leu Asn Val Leu Ser Arg Phe Pro 11e Thr Thr Leu Ser 145 150 155 160

Ala Asn Pro Glu Met Tyr Gln Glu Leu Leu Gln His Lys Cys Phe Thr 165 170 175

Arg Val Tyr Ser Val Pro Leu Pro Lys Gln 180 185

<210> 4007

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4007

Met Glu Glu Val Ile Phe Glu Glu Arg Ser Glu Glu Gly Lys Gly Val

Gly Thr Glu Asp Ile Gly Gly Thr Val Leu Pro Glu Thr Ser Gly Gln Pro Gly Thr Gly Thr Thr Ser Arg Lys Gly Ser Cys Glu Gly Phe Val Phe Ser Leu Gln Phe Val Asn Val Asn Thr Met Leu Thr Pro Lys Asn Ser Lys Phe Pro Thr Trp Leu Leu Cys Leu Pro Pro Ser Phe Pro Pro Phe Leu Pro Pro Ser Phe Leu Ser Ser Phe Leu Pro Ser Val Leu Pro Phe Phe Pro Ile Cys Pro Thr Ser Met Asp Glu Phe Ser Ser Leu Gly Cys Phe Leu His Cys Thr

<210> 4008

<211> 219

<212> PRT

<213> Homo sapiens

<400> 4008

Met Gly Pro Leu Ser Pro Tyr Ala Trp Ala Phe Ser His Thr Val Glu Cys Ile Phe Ile Phe Asn Lys Ser Leu His Ala Phe Leu Ala Leu Cys Val Leu Ser Asn Ser Leu Leu Lys Thr Ser Arg Thr Trp Thr Pro Thr Thr Gly Asn Val Tyr Phe Gly Gln Pro Gly Gly Arg Ser Lys Pro Lys Val Trp Asp Ser Phe Phe Ser Leu Ser Phe Leu Leu His Thr Arg Ala

Phe Ser Phe His Phe Gln Leu Gly Thr Leu Gly Gly Gln His Leu Asn

Val Glu Ala Thr Ala Gly Phe Trp Leu Trp Pro Val Lys Leu Met Gly

100 105 110 Phe Arg Ala Glu Lys Ala Asp Cys His Leu Leu Val Cys Leu Arg Asn 120 Leu Gly Leu Phe His Phe Phe Phe Leu Tyr Phe Ser Val Phe Lys Ser 135 140 Leu Phe Ile Ile Ala Leu Pro Arg Arg Gly Asn Asp Phe Phe Tyr 150 155 Leu Phe Cys Thr Trp Ser Pro 11e Pro Met Cys Gly Ala Val Gln Ser 165 170 175 Lys Leu Ala His Val Leu Arg Asp Leu Asn Leu Leu Met Leu Asn Ser 185 180 Ser Leu Thr Val Leu Asn Trp Leu Arg Asn Lys Lys Ala His Pro Ala 200 205 Ser Ser Ser His Cys Ser Ser Trp Leu Phe Leu 210 215

<210> 4009

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4009

Met Ala Leu Gly Phe Pro Gly Leu Gly Gly Gly Gly Ser Cys Gly Arg

1 5 10 15

Gln Ala Gly Trp Ala Ser Pro Ser Leu Ser Ala Gly Ser Arg His Cys 35 40 45

Pro His Pro Val Thr Pro Leu Gln Leu Phe Phe Leu Phe Pro Thr Ala 50 55 60

Ser Leu Val Asp Ala Pro Ser Glu Gln Pro Cys Thr Glu Pro Arg Ala 65 70 75 80

Gly Pro Gly Arg Cys Thr Leu Ala Leu Gly Asp Ser Ser Phe Thr Glu 85 90 95

Thr Thr Ile Ile Leu Trp Phe Gln Gly Gly Asn

100 105

<210> 4010

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4010

Met Tyr Ile Gln Phe Cys Ile Thr Leu Phe Ser Phe Ser Phe Phe Phe 1 5 10 15

Phe Phe Phe Cys Phe Leu Arg Gln Gly Leu Pro Leu Ser Leu Arg
20 25 30

Leu Gln Cys Ser Gly Thr 11e Leu Ala His Cys Asn Leu Arg Phe Leu 35 40 45

Gly Ser Asn Asp Pro Pro Thr Ser Ala Ser Gln Val Ala Trp Thr Thr
50 55 60

Gly Val His His His Ile Ser Leu Ile Phe Val Phe Val Glu Met Arg
65 70 75 80

Phe Cys Cys Val Ala Gln Val Gly Leu Glu Tyr Leu Gly Ser Ser Glu 85 90 95

Leu Ser Ala Leu Asp Ser Gln Ser Ala Gly lle Thr Gly Val Ser Gln
100 105 110

Cys Ala Trp Pro Ala Leu Cys Phe Phe Ser Phe Ala Val Ala Cys Tyr 115 120 125

<210> 4011

<211> 167

<212> PRT

<213> Homo sapiens

<400> 4011

Met Gly Pro Val Cys Arg Gly Ser Ser Gly Pro Leu Arg Val Ala Gly

1 5 10 15

Gly Ser Trp Thr Cys Leu Gly Gly Gln Thr Pro Gly Arg Gly Gln Leu

			20					25					30		
Arg	Arg	Ser	Ala	Ser	Asp	Phe	Ser	Gly	His	Leu	Gly	Ser	Pro	Пe	Pro
		35		/			40					45			
Пе	Ala	Pro	Gly	Leu	Asp	Pro	Leu	Pro	Val	Leu	Ser	Thr	Phe	Ser	Val
	50					55					60				
Thr	Leu	Asn	Ala	Leu	Pro	Ala	He	Ser	Ala	Ser	Gly	Arg	lle	His	Glu
65					70					75					80
Gly	Val	Gly	Arg	Asp	Val	Arg	Pro	Gly	Phe	Gly	Ser	Gln	Leu	Ser	His
				85					90					95	
Leu	He	Ala	Met	Arg	Pro	Cys	Thr	11e	Pro	Phe	Asn	Phe	Pro	Ser	Leu
			100					105					110		
Ser	Phe	Phe	Leu	Cys	Lys	Met	Gly	He	Gln	Arg	Asp	Ser	Leu	Leu	Ala
		115					120					125			
Arg	Asp	Ser	Trp	Cys	Leu	He	Arg	Leu	Lys	Leu	P.ro	Tyr	Leu	Gln	Ser
	130					135					140				
Lys	Lys	Pro	Cys	Asp	Glu	Lys	Leu	Phe	Cys	Gln	Tyr	Ala	Ala	Asn	Ser
145					150					155					160
Phe	Gly	Pro	Gln	Asn	Leu	Thr		•							
				165											
<210)> 4(012													
<211	1> 50	34													
<212	2> PI	RT													
<213	3> Ho	omo s	sapie	ens											
<400)> 4(012													
Met	Glu	Phe	Gly	Val	Phe	Pro	Met	Glu	Ala	Thr	His	Ser	Ser	He	Asp
1				5					10					15	
Glu	Glu	Gly	Tyr	lle	Gln	Gly	Ser	Gln	Arg	Asp	Arg	Gly	Ser	Ser	Leu
			20					25					30		
Val	Asp	Thr	61u	Glu	Ala	Lys	Thr	Lys	Ser	Glu	Asn	Val	Leu	His	Asp
		35					40					45			
Gln	Ala	Ala	Lys	Val	Asp	Lys	Asp	Asp	Gly	Lys	Glu	Thr	Gly	Glu	Thr

Phe Thr Phe Lys Arg His Ser Gln Asp Ala Ser Gln Asp Val Lys Leu

65					70					75					80
Tyr	Ser	Asp	Thr	Ala	Pro	Thr	Glu	Asp	Leu	He	Glu	Glu	Val	Thr	Ala
				85					90					95	
Asp	His	Pro	Glu	Val	Val	Thr	Met	He	Glu	Glu	Thr	He	Lys	Met	Ser
			100					105					110		
Gln	Asp	He	Asn	Phe	Glu	Gln	Pro	Tyr	Glu	Lys	His	Ala	Glu	He	Leu
		115					120					125			
Gln	Glu	Val	Leu	Gly	Glu	Val	Met	Glu	Glu	Asn	Lys	Asp	Arg	Phe	Pro
	130					135					140				
Gly	Ala	Pro	Lys	Tyr	Gly	Gly	Trp	He	Val	Asp	Asn	Cys	Pro	He	Val
145					150					155					160
Lys	Glu	Leu	Trp	Met	Ala	Leu	He	Lys	Lys	Gly	He	lle	Pro	Asp	Leu
				165					170					175	
Val	Пе	Tyr	Leu	Ser	Asp	Thr	Glu	Asn	Asn	Gly	Lys	Cys	Leu	Phe	Asn
			180					185					190		
Arg	He	Tyr	Leu	Gln	Lys	Lys	Ser	Glu	He	Asp	Ser	Lys	He	Leu	Glu
		195					200					205			
Arg	Leu	Leu	Glu	Glu	Leu	Gln	Lys	Lys	Lys	Lys	Glu	Glu	Glu	Glu	Ala
	210					215					220				
Arg	Lys	Ala	Thr	Glu	Glu	Glu	Leu	Arg	Leu	Glu	Glu	Glu	Asn	Arg	Arg
225					230					235					240
Leu	Leu	Glu	Leu	Met	Lys	Val	Lys	Ala	Lys	Glu	Ala	Glu	Glu	Thr	Asp
				245					250					255	
Asn	Glu	Val	Glu	Glu	Glu	He	Glu	Gly	Asp	Glu	Leu	Glu	Val	His	Glu
			260					265					270		
Glu	Pro	Glu	Ala	Ser	His	Asp	Thr	Arg	Gly	Ser	Trp	Leu	Pro	Glu	Glu
		275					280					285			
Phe		Ala	Ser	Glu	Val	Pro	Glu	Thr	Glu	Pro	Glu	Ala	Val	Ser	Glu
	290					295					300				
	lle	Glu	Glu	Thr		Val	Glu	Thr	Glu	He	Pro	Lys	Gly	Ser	Lys
305					310					315					320
Glu	Gly	Leu	Glu		Glu	Lys	Leu	Ser		Thr	Va]	Val	Leu		Glu
				325			•		330					335	
Phe	Pro	Glu		Ser	Tyr	Pro	Asp		Pro	Glu	Met	G1u		Phe	Lys
6.3			340	<u> </u>				345	_		J		350		_
Glu	Lys	He	GI y	Ser	Phe	He	He	Leu	Trp	Lys	Gln	Leu	Glu	Ala	Thr

lle Ser Glu Ala Tyr lle Lys lle Leu Asn Leu Glu Ile Ala Asp Arg Thr Pro Gln Glu Leu Leu Gln Lys Val Val Glu Thr Met Glu Lys Pro Phe Gln Tyr Thr Ala Trp Glu Leu Thr Gly Glu Asp Tyr Glu Glu Glu Thr Glu Asp Tyr Gln Thr Glu Ala Glu Val Asp Glu Glu Leu Glu Glu Glu Glu Glu Glu Glu Gly Glu Asp Lys Met Lys Glu Arg Lys Arg His Leu Gly Asp Thr Lys His Phe Cys Pro Val Val Leu Lys Glu Asn Phe lle Leu Gln Pro Gly Asn Thr Glu Glu Ala Ala Lys Tyr Arg Glu Lys lle Tyr Tyr Phe Ser Ser Ala Glu Ala Lys Glu Lys Phe Leu Glu His Pro Glu Asp Tyr Val Ala His Glu Glu Pro Leu Lys Val Arg Gln Tyr Ser Tyr Leu Asn Asp Cys Ser His Arg lle Phe Leu Gly Leu Ile Thr Asn His His Gln Phe Thr

<210> 4013

<211> 572

<212> PRT

<213> Homo sapiens

<400> 4013

Met Ala Ser Ser Glu Thr Glu 11e Arg Trp Ala Glu Pro Gly Leu Gly

1 5 10 15

Lys Gly Pro Gln Arg Arg Arg Trp Ala Trp Ala Glu Asp Lys Arg Asp

20 25 30

Val Asp Arg Ser Ser Ser Gln Ser Trp Glu Glu Glu Arg Leu Phe Pro

		35					40					45			
Asn	Ala	Thr	Ser	Pro	Glu	Leu	Leu	Glu	Asp	Phe	Arg	Leu	Ala	Gln	Gln
	50					55					60				
His	Leu	Pro	Pro	Leu	Glu	Trp	Asp	Pro	His	Pro	Gln	Pro	Asp	Gly	His
65					70					75					80
Gln	Asp	Ser	Glu	Ser	Gly	Glu	Thr	Ser	Gly	Glu	Glu	Ala	Glu	Ala	Glu
				85					90					95	
Asp	Val	Asp	Ser	Pro	Ala	Ser	Ser	His	Glu	Pro	Leu	Ala	Trp	Leu	Pro
			100					105					110		
Gln	Gln	Gly	Arg	Gln	Leu	Asp	Met	Thr	Glu	Glu	Glu	Pro	Asp	Gly	Thr
		115					120					125			
Leu	Gly	Ser	Leu	Glu	Va]	Glu	Glu	Ala	Gly	Glu	Ser	Ser	Ser	Arg	Leu
	130					135					140				
Gly	Tyr	Glu	Ala	Gly	Leu	Ser	Leu	Glu	G1 y	His	Gly	Asn	Thr	Ser	Pro
145					150					155					160
Met	Ala	Leu	Gly	His	Gly	Gln	Ala	Arg	Gly	Trp	Val	Ala	Ser	Gly	Glu
				165					170					175	
Gln	Ala	Ser	Gly	Asp	Lys	Leu	Ser	Glu	His	Ser	Glu	Val	Asn	Pro	Ser
			180					185					190		
Val	Glu	Leu	Ser	Pro	Ala	Arg	Ser	Trp	Ser	Ser	Gly	Thr	Val	Ser	Leu
		195					200					205			
Asp	His	Pro	Ser	Asp	Ser	Leu	Asp	Ser	Thr	Trp	Glu	Gly	Glu	Thr	Asp
	210					215					220				
G1y	Pro	Gln	Pro	Thr	Ala	Leu	Ala	Glu	Thr	Leu	Pro	Glu	Gly	Pro	Ser
225					230					235				•	240
His	His	Leu	Leu	Ser	Pro	Asp	G1 y	Arg	Thr	Gly	Gly	Ser	Val	Ala	Arg
				245					250					255	
Ala	Thr	Pro	Met	Glu	Phe	Gln	Asp	Ser	Ser	Ala	Pro	Pro	Ala	G1n	Ser
			260					265					270		
Pro	G]n		Ala	Thr	Asp	Arg	Trp	Arg	Arg	Glu	Thr	Thr	Arg	Phe	Phe
		275					280					285			
Cys		Gln	Pro	Lys	Glu	His	He	Trp	Lys	Gln	Thr	Lys	Thr	Ser	Pro
	290					295					300				
	Pro	Leu	Pro	Ser		Phe	He	Gly	Ser		Ser	Pro	Leu	Asn	
305	_				310					315					320
Gln	Pro	Arg	Pro	Thr	Arg	Gln	Gly	Arg	Pro	Leu	Pro	Arg	Gln	Gly	Ala

				325					330					335	
Thr	Leu	Ala	Gly	Arg	Ser	Ser	Ser	Asn	Ala	Pro	Lys	Tyr	Gly	Arg	Gly
			340					345					350		
Gln	Leu	Asn	Tyr	Pro	Leu	Pro	Asp	Phe	Ser	Lys	Val	Gly	Pro	Arg	Val
		355					360					365			
Arg	Phe	Pro	Lys	Asp	Glu	Ser	Tyr	Arg	Pro	Pro	Lys	Ser	Arg	Ser	His
	370					375					380				
Asn	Arg	Lys	Pro	Gln	Ala	Pro	Ala	Arg	Pro	Leu	He	Phe	Lys	Ser	Pro
385					390					395					400
Ala	Glu	Ile	Val	Gln	Glu	Val	Leu	Leu	Ser	Ser	Gly	Glu	Ala	Ala	Leu
				405					410					415	
Ala	Lys	Asp	Thr	Pro	Pro	Ala	His	Pro	11e	Thr	Arg	Val	Pro	Gln	Glu
			420					425					430		
Phe	GIn	Thr	Pro	Glu	Gln	Ala	Thr	Glu	Leu	Val	His	Gln	Leu	Gln	Val
		435					440					445			
Ser	Gly	Thr	His	Gly	Cys	Gly	Cys	Val	Thr	Lys	Ala	Pro	Val	Gly	Leu
	450					455					460				
Gly	Trp	Arg	Leu	He	Gly	Val	Gly	Arg	Pro	Gly	Val	Glu	Ala	Gly	Trp
465					470					475					480
Gly	Gly	Glu	Ala	Trp	Asp	Arg	Ala	Trp	Leu	Gly	Trp	Glu	Ala	Leu	Gly
				485					490					495	
Arg	Arg	Leu	Val	Gly	Trp	G1y	G1y	Leu	Gly	Trp	Arg	Leu	Ala	Arg	Val
			500					505					510		
Gly	Ser	Pro	Gly	Met	Glu	Ala	Ser	Gly	Val	G1 y	Arg	Pro	Gly	Val	Gly
		515					520					525			
Ser		G1y	Va]	Glu	Pro	G1y	Gly	Val	Gly	Arg	Pro	Gly	Val	Glu	Ala
	530					535					540				
G1 y	Trp	Gly	Arg	Lys	Pro	Trp	Asp	Arg	Gly	Trp	Trp	Gly	G1 y	Glu	Ala
545					550					555					560
Trp	Gly	Gly	Gly	Trp	Leu	Gly	Gln	Glu	Ala	Leu	Gly				
				565					570						

<210> 4014

<211> 104

<212> PRT

<213> Homo sapiens

<400> 4014

Met Ser Met Gln Arg Leu Ala Pro Lys Lys Thr Arg Lys Glu Gln Ser Ala Asn Asp His Pro IIe Gly Gly Pro Glu Gly Arg Leu Phe Thr Ser 25 Gln Leu Gln Leu Lys Phe Arg Ala Leu Ser Glu Arg Asn Ser Trp Leu 40 Glu Val Ser Arg Ala Val Thr Pro Thr Ser Ala Ala Val Thr Ser Thr 55 60 Pro Ser Thr Ser Lys Pro Arg Gln Lys Arg Pro Thr Asn Ser Gln Ser 70 75 65 80 Arg Ser Ala Ala Lys Pro Thr Pro Val Val Phe Leu Gln Lys Ile Ile 85 90 95 Asn Cys Gly Glu Glu Glu Gly Lys 100

<210> 4015

<211> 226

<212> PRT

<213> Homo sapiens

<400> 4015

Met Gly Phe Cys Tyr Val Ala Gln Ala Gly Leu Lys Leu Leu Gly Ser 1 5 10 15

Ser Asp Leu Pro Thr Leu Ala Ser Gln Ser Ala Arg Ile Thr Gly Met 20 25 30

Ser His Trp Ala Trp Pro Ser Leu Phe Ser Tyr Phe Leu Gly Thr Cys 35 40 45

Arg Pro Glu 11e His Met His Leu Ser Leu Leu Pro Asp Arg Arg Thr 50 55 60

His Trp Asn Val Gly 11e Asp Phe Thr Ala Ser Asn Gly Asn Pro Leu 65 70 75 80

Asp Pro Ser Ser Leu His Tyr lle Asn Pro Met Gly Thr Asn Glu Tyr Leu Ser Ala Ile Trp Ala Val Gly Gln Ile Ile Gln Asp Tyr Asp Ser Asp Lys Met Phe Pro Ala Leu Gly Phe Gly Ala Gln Leu Pro Pro Asp Trp Lys Gln Tyr Phe 11e Leu Leu Ile Ile Thr Asp Gly Val 11e Ser Asp Met Glu Glu Thr Arg His Ala Val Val Gln Ala Ser Lys Leu Pro Met Ser lle lle Val Gly Val Gly Asn Ala Asp Phe Ala Ala Met Glu Phe Leu Asp Gly Asp Ser Arg Met Leu Arg Ser His Thr Gly Glu Glu Ala Ala Arg Asp lle Val Gln Phe Val Pro Phe Arg Glu Phe Arg Asn Val Ser Val Gly Leu Gly Trp Glu Gly Ala Val Thr Gly Ser Gln Pro Pro

<210> 4016

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4016

60 50 55 Asn Asp Thr Ile Thr Thr Gln Met Lys Arg Thr Gly Trp Asn Ile His 65 70 75 80 Gln Pro Thr Asn Val 11e Ser Gln Pro Thr Leu Gln Thr Pro Ser Gln 85 90 Lys Ser Ile Gln Phe Arg Ile Ala His Cys Trp Gln Arg Lys Asn Val 100 105 110 Thr Asn Leu Phe Thr Gly Glu Tyr 115 120

<210> 4017

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4017

Met Thr Ser Cys Ser Met Ala Pro Ser Thr Pro Ser Ser Ser Gly

1 5 10 15

Ala Lys Ala Trp Arg Arg Ser Pro Glu Ala Pro Ser Pro Trp Ser Cys
20 25 30

Ser Ser Glu Cys Arg His Asn Glu Ala Tyr Thr Trp Thr Asn Pro Thr 35 40 45

Cys Cys Val His Asn Val 11e 11e Gly Lys Leu Trp 11e Glu Gln Tyr 50 55 60

Gly Thr Val Glu lle Leu Asn His Arg Thr Gly His Lys Cys Val Leu 65 70 75 80

His Phe Lys Pro Cys Gly Leu Phe Gly Lys Glu Leu His Lys Val Glu 85 90 95

Gly His lle Gln Asp Lys Asn Lys Lys Lys Leu Phe Met lle Tyr Gly
100 105 110

Lys Trp Thr Glu Cys Leu Trp Gly 11e Asp Pro Val Ser Tyr Glu Ser 115 120 125

Phe Lys Lys Gl
n Glu Arg Arg Gly Asp His Leu Arg Lys Ala Lys Leu 130
 $135\,$ 140

Val Arg Ala Gly Ala Ser Pro Gly Arg Ala Glu Pro Trp Val Leu Arg

 145
 150
 155
 160

 Ala Ala Arg Pro Leu Leu Pro Leu Ala His Leu Leu Gly Ser Gln Gly
 165
 170
 175

 Thr Phe Gly Pro His Gln Glu Arg
 180
 180

<210> 4018 <211> 108

<212> PRT

<213> Homo sapiens

<400> 4018

Met Ser Thr Ser Leu Leu 11e Cys Lys Ser Arg Ser Cys Phe Leu Val 1 5 10 15

Tyr Leu Ala Cys Val Tyr Leu Tyr Gly Val Ala Arg Arg Asp His Arg
20 25 30

Asn Ala Cys Ser Leu Arg Gln Gly Phe Gln Thr Val Gly Pro Ser Pro 35 40 45

Phe Ser Lys Met Gly Asn Gln Leu Ala Ser Gly His Gln His Tyr Thr 50 55 60

Ala Met Lys Gln Asn Lys Val Gly Gln Asn Ala Ser Cys Ser Lys Gly
65 70 75 80

Lys Tyr Cys Phe Val Lys Leu Phe Thr His Thr Ser Lys Cys Glu Asn
85 90 95

Trp Leu Gln Cys Lys Thr Phe Leu Ala Gly Lys Leu 100 105

<210> 4019

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4019

Met Ile Ser Lys Arg Phe Leu Ser Lys Ala Asp Leu Leu Gln Asn 5 1 10 Gly Ala Ala Cys Thr Pro Gly His Ser Glu Ser Thr Pro Asn Lys Gly 20 25 30 Gly Glu Val Val Phe IIe Pro Asn Thr Ala Ser Ser Cys Phe Cys Val 40 Leu Ser Pro Leu Ala Arg Val Gln Ser Lys Leu Val Leu Ile Gly Tyr 55 Phe Lys Gln Glu Gly Cys Gly Leu Gln Gln Trp Glu Glu Gln Leu Pro 70 75 Arg Ala Arg Glu Thr Phe Pro Asp Lys Glu Gln Met Arg Val Thr Gly 85 90 Trp Asp Trp Trp Glu Lys Cys Leu Gln Asn Gly 100 105

<210> 4020

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4020

Met Lys Glu 11e Val Asp Val Thr Arg Val Arg Asn Glu Gly Phe Gln
1 5 10 15

Asp Lys Asn Leu Gly Glu 11e Gln Gln Leu 11e Gly Thr Thr Glu 20 25 30

Glu Leu Thr Glu Asp Asp Leu Thr Glu Met Ser Val Leu Lys Pro Met
35 40 45

Pro Asp Asn Glu Glu Lys Glu Ile Glu Ala Ala Val Pro Glu Asn Lys 50 . 55 60

Met Thr Leu Asp Asn Leu Ala Ala Glu Phe Pro Leu Phe Lys Thr Ser 65 70 75 80

Phe Asp Phe Phe Tyr Asp Met Asp Ser Ser Met Gly Thr Glu Thr Lys

85 90 95

Ala Asn Gly Glu Arg Arg Ile Gly Thr Ile

<210> 4021 <211> 115 <212> PRT <213> Homo sapiens <400> 4021 Met Gly Leu Arg Trp Ser Arg Arg Leu Trp Pro Val Val His Ser 5 10 Trp Val Pro Ala Ser Gly Gly Thr His Cys Thr Tyr Gln Gly Ser Pro 25 Ser His Leu Leu Thr Gln Ala Leu Gly Leu Thr Gly Pro Pro Pro Ala 35 40 45 Ser Leu Ala Ala Phe Leu Ser Pro Trp Glu Ala Glu Pro Pro Ser Asp 55 Pro Leu Ser Pro Glu Ser Thr Ile Ala Leu Phe Ser Leu Asn Val Leu 70 75 lle Phe Glu Met Ala Ala Ser Gly Pro Ser Glu Gly Arg Met Arg Glu 85 90 Asn Val Gly Gln Thr Arg Leu Glu Val Pro Cys Cys Asn Glu Val Cys 105 110 Ser Pro Thr 115 <210> 4022 <211> 114 <212> PRT <213> Homo sapiens <400> 4022

Met Leu Leu Asn Glu Lys Trp Leu Pro Tyr Pro Glu Val Pro Ser Pro

Phe Leu Leu Gly Leu Thr Leu Ala His Gln Glu Leu Gly Cys Ser Pro

25

10

15

30

1

Val Asn Arg Thr Ser Met Gln Val Trp Asn Leu Ala Asn Cys Lys Leu Lys Thr Asn His Ile Gly His Thr Gly Tyr Leu Asn Thr Val Thr Val 50 55 60 Ser Pro Asp Gly Ser Leu Cys Ala Ser Gly Gly Lys Val Phe Gly Asp 70 75 Lys Ala Ser Pro Thr Gln Trp Lys Thr Ala Ser Trp Lys Glu His Leu 90 85 95 Ala Ser Val Ser Asn Val Lys Trp Gln Thr Leu Ala Lys Met Val Leu 100 105 110 Gly Gly

<210> 4023

<211> 163

<212> PRT

<213> Homo sapiens

<400> 4023

Met Ser Thr Thr Ser 11e Ser Ser Pro Gln Pro Gly Lys Leu Arg Ser

1 5 10 15

Pro Phe Leu Gln Lys Gln Leu Thr Gln Pro Glu Thr His Phe Gly Arg 20 25 30

Glu Pro Ala Ala Ile Ser Arg Pro Arg Ala Asp Leu Pro Ala Glu 35 40 45

Glu Pro Ala Pro Ser Thr Pro Pro Cys Leu Val Gln Ala Glu Glu Glu 50 55 60

Ala Val Tyr Glu Glu Pro Pro Glu Gln Glu Thr Phe Tyr Glu Gln Pro
65 70 75 80

Pro Leu Val Gln Gln Gln Gly Ala Gly Ser Glu His lle Asp His His
85 90 95

lle Gln Gly Gln Gly Leu Ser Gly Gln Gly Leu Cys Ala Arg Ala Leu 100 105 110

Tyr Asp Tyr Gln Ala Ala Asp Asp Thr Glu 11e Ser Phe Asp Pro Glu 115 120 125 Asn Leu IIe Thr Gly IIe Glu Val IIe Asp Glu Gly Trp Trp Arg Gly
130

Tyr Gly Pro Asp Gly His Phe Gly Met Phe Pro Ala Asn Tyr Val Glu
145

Leu IIe Glu

<210> 4024

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4024

Met Met Met Cys Val Met Ser Arg Leu Ser Val Pro Thr Asn Ser Tyr

1 5 10 15

Glu Met Glu Pro Leu Gly Gln Ser Ser Glu Leu Val Leu Leu Leu Phe 20 25 30

Leu Asp Lys Gly Leu Leu Leu Leu Ile Leu Ser Ile Asp Arg Asn Gln
35 40 45

Glu Glu Asn Thr Phe Thr Arg Leu Ile Ile Thr Tyr Lys Val Leu Gln
50 55 60

Ala Val Leu Met Cys Ser Ser Glu Asp 11e Ser Gly Thr Ala Ala Met 65 70 75 80

lle Glu Pro Thr Tyr Trp Leu Ser Leu Leu Lys Cys lle Val lle His
85 90 95

Leu Asn Leu Phe Val Trp Gly Phe Cys Trp Phe Cys Phe Leu Gln Gly
100 105 110

Ala Asp Arg

115

<210> 4025

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4025

Met Ile Ser Ala His Cys Asn Leu Arg Leu Ser Gly Ser Ser Asp Ser 1 5 10 15

Pro Ala Ser Gly Ser Arg Val Ala Gly 11e Ala Asp Lys Tyr Ala Glu 20 25 30

Ala Cys Phe Gln Gly Gly Glu Arg Asp Ser Phe Ser Ser Ala Gly His
35 40 45

Arg Ala Asn Leu Lys Cys Ser Thr Val Val Thr Trp Arg Asp Leu Leu 50 55 60

Ser Ser His Ser Arg Gly Pro Phe Trp Gly Gln Gly Asp Phe Ser Val 65 70 75 80

Arg Pro Val Asp Leu Ile Glu Met Met Ser Cys His Ile Ala Gln Ala 85 90 95

Gly Leu Lys Leu Gln Ala

100

<210> 4026

<211> 124

<212> PRT

<213> Homo sapiens

<400> 4026

Met Gln Ala Thr Cys Leu His Val Arg Gly Ser Leu Glu Ser Ser His

1 5 10 15

Arg Ala Thr Pro Trp Leu Gly Ser Ser Pro Ala Leu Leu Pro Pro Ser 20 25 30

Pro Ser Pro Ala Ala Ala Leu Ser Met Ala Glu Pro Leu Leu Pro Leu 35 40 45

Leu Glu Gly Arg Ser Thr Glu Gln 11e Gln Glu Arg Asn His Cys Val
50 55 60

Phe His Arg Arg Glu Ser Thr Leu Asp Phe Leu Cys Asn Leu Leu Leu 65 70 75 80

His Phe His Arg Asp Ser Tyr Leu Cys Ser Val Thr Gln Leu Lys Pro

 85
 90
 95

120

<210> 4027

<211> 141

<212> PRT

<213> Homo sapiens

115

<400> 4027

Met Ile Ile Ile Val Arg Ile Ala Ile Ile Lys Lys Ser Arg Asn Asn 1 5 10 15

Ser Cys Trp Cys Gly Cys Arg Lys Lys Arg Met His Val Tyr Cys Ser 20 25 30

Trp Glu Gln Leu Val Gln Pro Leu Trp Lys Ala Val Trp Arg Phe Leu 35 40 45

Lys Lys Leu Lys Ile Glu Leu Pro Phe Asn Pro Ala Ile Pro Leu Leu 50 55 60

Gly Val Tyr Pro Lys Glu Asp Lys Ser Phe Tyr Glu Asn Ala Cys Ser 65 70 75 80

Cys Val Phe lle Ala Ala Leu Phe Thr lle Ala Lys Ser Trp lle Gln 85 90 95

Pro Lys Cys Leu Ser Ala Val Val Trp IIe Lys Arg Met Trp Cys IIe 100 105 110

His Thr Glu Ile Leu Cys Ser His Lys Asn Met Lys Leu Leu Ser Phe 115 120 125

Ala Ala Thr Trp Met Lys Pro Glu Gly His Tyr Pro Lys 130 135 140

<210> 4028

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4028 Met Arg Tyr Gly Pro Gly Lys Glu Ala Ser Pro Arg Pro Leu Gln Ala 5 10 Pro Arg Lys Val Ser Ile Glu Gly Arg Glu Leu Gly Lys Leu Ser Gln 25 Gln Gly Trp Lys Glu Val Gly Asn Pro Phe Ser Gly Ser Leu Pro Val 40 45 Lys Leu Leu Ser Ser Gly Arg Ser Cys Pro Arg Tyr Arg Met Val Ser 55 Ser Val Cys Gln Ser Ser Thr Gln Asn Leu Gly Pro Cys Gln Ser Cys 65 70 75 Thr Lys Asp His Thr Val Leu Ser Ser Tyr Ser Val Val Val Phe Val 85 90 Thr Ile His Tyr Leu Ile Ile Phe Lys Tyr Thr Ser Cys Phe Ile Asp 100 105 110 Phe <210> 4029 <211> 360 <212> PRT <213> Homo sapiens <400> 4029 Met Gln lle lle Arg His Ser Glu Gln Thr Leu Lys Thr Ala Leu lle

65					70					75					80
Thr	Pro	Ser	Pro	Asn	Lys	Arg	Ser	lle	Tyr	He	Gln	Ser	He	Gly	Ser
				85					90					95	
Leu	Gly	Asn	Thr	Arg	lle	11e	Ser	Glu	Glu	Tyr	Пе	Lys	Trp	Leu	Thr
			100					105					110		
Gly	Tyr	Cys	Lys	Ala	Tyr	Phe	Tyr	Gly	Leu	Arg	Val	Lys	Leu	Leu	Glu
		115					120					125			
Pro	Val	Pro	Val	Ser	Val	Thr	Arg	Cys	Ser	Phe	Arg	Val	Asn	Glu	Asn
	130					135					140				
Thr	His	Asn	Leu	Gln	He	His	Ala	Gly	Asp	He	Leu	Lys	Phe	Leu	Lys
145					150					155					160
Lys	Lys	Lys	Pro	Glu	Asp	Ala	Phe	Cys	Val	Val	Gly	He	Thr	Met	Пе
				165					170					175	
Asp	Leu	Tyr	Pro	Arg	Asp	Ser	Trp	Asn	Phe	Va]	Phe	Gly	Gln	Ala	Ser
			180					185					190		
Leu	Thr	Asp	Gly	Val	Gly	lle	Phe	Ser	Phe	Ala	Arg	Tyr	Gly	Ser	Asp
		195					200					205			
Phe	Tyr	Ser	Met	His	Tyr	Lys	Gly	Lys	Val	Lys	Lys	Leu	Lys	Lys	Thr
	210					215					220				
Ser	Ser	Ser	Asp	Tyr	Ser	He	Phe	Asp	Asn	Tyr	Tyr	He	Pro	Glu	He
225					230					235					240
Thr	Ser	Val	Leu	Leu	Leu	Arg	Ser	Cys	Lys	Thr	Leu	Thr	His	Glu	He
				245					250					255	
Gly	His	He	Phe	Gly	Leu	Arg	His	Cys	Gln	Trp	Leu	Ala	Cys	Leu	Met
			260					265					270		
Gln	Gly	Ser	Asn	His	Leu	Glu	Glu	Ala	Asp	Arg	Arg	Pro	Leu	Asn	Leu
		275					280					285			
Cys	Pro	He	Cys	Leu	His	Lys	Leu	Gln	Cys	Ala	Val	Gly	Phe	Ser	Пe
	290					295					300				
Val	Glu	Arg	Tyr	Lys	Ala	Leu	Val	Arg	Trp	Пе	Asp	Asp	Glu	Ser	Ser
305					310					315					320
Asp	Thr	Pro	Gly	Ala	Thr	Pro	Glu	His	Ser	His	Glu	Asp	Asn	Gly	Asn
				325					330					335	
Leu	Pro	Lys	Pro	Val	Glu	Ala	Phe	Lys	Glu	Trp	Lys	Glu	Trp	lle	lle
			340					345					350		

Lys Cys Leu Ala Val Leu Gln Lys 355 360

<210> 4030

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4030

Met Leu Gly Thr Asp Arg Cys Val Val Glu Glu Trp Leu Ser Glu Phe

1 5 10 15

Lys Ala Leu Pro Asp Thr Gln He Thr Ser Tyr Ala Ala Thr Leu His 20 25 30

Arg Lys Lys Thr Leu Val Pro Ala Leu Tyr Lys Val 11e Gln Asp Ser 35 40 45

Asn Asn Glu Leu Leu Glu Pro Val Cys His Gln Leu Phe Glu Leu Tyr 50 55 60

Arg Ser Ser Glu Val Arg Leu Lys Arg Phe Thr Leu Gln Phe Leu Pro
65 70 75 80

Glu Leu Met Trp Val Tyr Leu Arg Leu Thr Val Ser Arg Asp Arg Gln
85 90 95

Ser Asn Gly Cys 11e Glu Ala Leu Leu Gly 11e Tyr Asn Leu Glu 100 105 110

lle Ala Asp Lys Asp Gly Asn Asn Lys Val Leu Ser Phe Thr lle Pro 115 120 125

Ser Leu Ser Lys Pro Ser Ile Tyr His Glu Pro Ser Thr Ile Gly Ser 130 135 140

Met Ala Leu Thr Glu Gly Ala Leu Cys Gln His Asp Leu Ile Arg Val 145 150 155 160

Val Tyr Ser Asp Leu His Pro Gln Arg Glu Thr Phe Thr Ala Gln Asn 165 170 175

Arg Phe Glu Val Leu Ser Phe Leu Met Leu Cys Tyr Asn Ser Ala Ile 180 185 190

Val Tyr Met Pro Ala Ser Ser Tyr Gln Ser Leu Cys Arg Met Gly Ser 195 200 205 Arg

<210> 4031 <211> 139 <212> PRT <213> Homo sapiens <400> 4031

 Met Leu Glu Pro Ser Ala Lys Cys Pro Arg Gln Glu Gly Lys Tyr Pro

 1
 5
 10
 15

 His Arg Gly Arg Pro Gly Asp Pro Asp Phe Arg Ala Ala Gly Glu Glu
 20
 25
 30

 Gly Arg Gly Arg Trp Gly Ala Leu Gln Phe Arg Ser Thr Gly Asn Pro
 35
 40
 45

Glu Lys Ser Ser Pro Leu Arg Gly Leu Pro Ser Pro Ala Pro Ser Leu 50 55 60

Pro His Arg Ala Leu Gly Ala Ala Ala Gly Arg Gly Asp Arg Arg Gly 65 70 75 80

Arg Glu Asp Arg Glu Ala Lys Glu Leu Gly Trp Gly Val Arg Val Trp 85 90 95

Trp Arg Gly Trp Asp Asp Thr Gly Val Leu Arg Gly Gly Ala Gly Arg 100 105 110

Lys Ala Arg Arg Pro Gly Gln Val Gly Val Arg Arg Ser Gly Arg Gln
115 120 125

Glu Arg Gly Cys Gly Arg Gly Arg Leu Gly Phe 130 135

<210> 4032

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4032

Met Arg Pro Leu Ala Ser Leu Ser Gly Gln Lys Ser Arg Val Ala 1 5 10 Phe Ala Gln Met Thr Met Pro Cys Pro Asn Phe Tyr Ile Leu Asp Glu 20 25 30 Pro Thr Asn His Leu Asp Met Glu Thr Ile Glu Ala Leu Gly Arg Ala 40 Leu Asn Asn Phe Arg Gly Gly Val Ile Leu Val Ser His Asp Glu Arg 55 Phe Ile Arg Leu Val Cys Arg Glu Leu Trp Val Cys Glu Gly Gly 70 65 Val Thr Arg Val Glu Gly Gly Phe Asp Gln Tyr Arg Ala Leu Leu Gln 85 90 Glu Gln Phe Arg Arg Glu Gly Phe Leu 100 105

<210> 4033

<211> 111

<212> PRT

<213> llomo sapiens

<400> 4033

Met Ala Tyr Gly Phe Arg Asn lle Gln Asn Leu Val Gln Arg Leu Lys 1 5 10 15

Arg Gly Arg Cys Pro Tyr His Tyr Val Glu Val Met Ala Cys Pro Ser 20 25 30

Gly Cys Leu Asn Gly Gly Gln Leu Gln Ala Pro Asp Arg Pro Ser 35 40 45

Arg Glu Leu Leu Gln His Val Glu Arg Leu Tyr Gly Met Val Arg Ala 50 55 60

Glu Ala Pro Glu Asp Ala Pro Gly Val Gln Glu Leu Tyr Thr His Trp
65 70 75 80

Leu Gln Gly Thr Asp Ser Glu Cys Ala Gly Arg Leu Leu His Thr Gln 85 90 95

Tyr His Ala Val Glu Lys Ala Ser Thr Gly Leu Gly He Arg Trp 100 105 110

<210> 4034 <211> 100 <212> PRT <213> Homo sapiens <400> 4034 Met Pro Leu Gly Ser Gly His Arg Trp Leu His Ser Pro Leu Ala Pro 5 10 15 Cys Arg Cys Pro Cys Thr Leu Pro Pro Ser Arg Pro Thr Arg Asp Ala 20 25 Ala Leu Pro Trp Pro Ala Ala Val Leu Cys Cys Gly Phe Leu Ala Val 35 40 45 Ala Gly Thr Gly Pro Pro Pro Pro Val Pro Ser Gly His Arg Leu Gln 55 60 Gln Arg Leu Gly Cys Arg Glu Gly Tyr Gln Ser Trp Glu Asn Trp Pro 70 75 Pro Cys Arg Phe Thr Glu Gln Gly Gly Ser His Arg Glu Val Ser Gly 95 Phe Phe Leu Arg 100 <210> 4035 <211> 282 <212> PRT <213> Homo sapiens <400> 4035

Met Ala Leu Ser Cys Ser Ser Trp Cys Arg Ser Pro Gln Trp Lys Phe

Glu Ala Ser Lys Ser His Ala Asn His Arg Pro Ile Cys Leu Ser Pro

Arg Ile Trp Pro Gly Ser Ala Ser Ala Thr Ser Thr Val Cys Ser Ser

25

20

10

		35					40					45			
Ser	Glu	Ser	Phe	Leu	Pro	Arg	Gly	Pro	Pro	Ala	Val	Ser	Leu	Leu	Leu
	50					55					60				
His	Gly	Pro	Pro	Thr	Val	Ser	Phe	Pro	Pro	Pro	Trp	Pro	Thr	His	His
65					70					75					80
Val	Leu	Pro	Ser	Pro	Val	Ala	His	Pro	Pro	Cys	Pro	Cys	Leu	Pro	Pro
				85					90					95	
Asp	Met	Pro	Leu	Glu	Leu	Pro	Gly	Pro	Cys	Cys	Cys	Pro	His	Cys	Leu
			100					105					110		
Cys	Asp	Ser	Ala	Pro	Pro	Ser	Leu	Pro	Cys	Pro	Thr	Leu	Val	Gln	Gly
		115					120					125			
Ala	Ser	Arg	Pro	Пе	Leu	He	Leu	Arg	Ala	Phe	Pro	Gly	Pro	Cys	His
	130					135					140				
Ser	Val	Pro	Cys	His	Asp	Leu	Lys	Leu	Gln	Val	Gly	Ala	Ser	Pro	Phe
145					150					155					160
Arg	His	Gly	Cys	Pro	Pro	Ser	Val	Arg	Cys	Pro	Ser	Arg	Leu	11e	Ala
				165					170	•				175	
Gly	Val	Pro	Gly	Cys	Ser	Val	Leu	Ser	Trp	Ser	Leu	Gly	His	Ser	Leu
			180					185					190		
Ser	Gly	lle	Asp	Ser	Arg	Val	Gly	Ala	Thr	Pro	Gly	Leu	Gly	His	Ser
		195					200					205			
Leu	Ser	Trp	Val	Arg	Ala	Pro	Pro	Gly	Leu	Gly	His	Ser	Leu	Ser	Gly
	210					215					220				
Val	Gly	Ala	Thr	Pro	Gly	Leu	Gly	His	Leu	Leu	Ser	Gly	Val	Gly	Ala
225					230					235					240
Ser	Pro	Gly	Glu	Asp	Thr	Glu	His	Ala	Ala	Ala	Leu	Thr	Pro	Cys	Gly
				245					250					255	
Val	Pro	Pro	Val	Pro	Gly	Cys	Arg	Ser	His	Ser	Gln	Pro	Leu	Ser	His
			260					265					270		
Leu	Val	Ser	Ser	Ser	Arg	Cys	Cys	Gly	Pro						
		275					280								

<210> 4036

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4036

Met Asn Lys Val Asn Leu Leu Val 11e Phe Lys Leu Leu Val Leu Gly

1 5 10 15

Val Cys Asn Lys Val Lys Val Tyr Ile Leu Val Leu Pro Lys Ser His
20 25 30

Leu Lys Tyr Leu Gln Ile Phe Asn Leu Cys Val Val Tyr Pro Ile Ile 35 40 45

Ala Pro Ile Ser Gly Lys Ser Val Phe Leu Lys Phe Lys Lys Glu Glu 50 55 60

Lys Gln Gln Ser Asp Tyr Phe Ala Val Glu Lys Lys Ser Val Ser Phe 65 70 75 80

Met Gly Tyr Thr Phe Ile Phe Leu Cys Ser Val Lys Leu Ala Thr Leu 85 90 95

Trp Gly Thr Trp Val Leu Phe Leu Leu Val His Asp Val Cys Phe Arg 100 105 110

Thr Tyr Leu Leu Thr Phe Gln Arg Thr Ser Tyr lle Thr Cys Leu Thr
115 120 125

Tyr

<210> 4037

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4037

Met Gly Asn Leu Cys Ser Trp Thr Leu Lys Ile Leu Glu Ser Leu His

He Arg Asn Val Lys Met Ala Trp Pro Ser Lys Gly Phe Ser Asn Ser 20 25 30

Ser Cys Leu Gl
n Ala Val Pro Gl
n Thr Glu His Tyr As
n Leu Arg Ser 35 40 45

Phe Leu Leu Ala Tyr Asn Ser Asp Ser Gly Ser Pro Lys Gln Ser 11e

Trp Leu Ala Ile Ala Arg Leu Val Asn Gly Ile Phe Tyr Leu Leu Lys Thr Ala Lys Tyr Cys Thr Arg Gly Arg Ser Trp Ala Ala Gly Arg Glu Gln Gln Met Glu Arg Ser Leu Leu Ile Val Leu Ile Ser Trp Lys Thr Thr Val Arg Arg Cys <210> 4038 <211> 172 <212> PRT <213> Homo sapiens <400> 4038 Met Pro Gln Ile Pro Arg Asp Asn Lys Ala Ala Ala Leu Leu Met Leu Thr Lys Asn Val Asp Phe Val Lys Asp Ala His Glu Glu Met Glu Gln Ala Val Glu Glu Cys Asp Pro Tyr Ser Gly Leu Leu Asn Asp Thr Glu Glu Asn Asn Ser Asp Asn His Asn His Glu Asp Asp Val Leu Gly Phe Pro Ser Asn Gln Asp Leu Tyr Trp Ser Glu Asp Asp Gln Glu Leu Ile lle Pro Cys Leu Ala Leu Val Arg Ala Ser Lys Ala Cys Leu Lys Lys lle Arg Met Leu Val Ala Glu Asn Gly Lys Lys Asp Gln Val Ala Gln Leu Asp Asp Ile Val Asp Ile Ser Asp Glu Ile Ser Pro Ser Val Asp Asp Leu Ala Leu Ser Ile Tyr Pro Pro Met Cys His Leu Thr Val Arg

lle Asn Val Ser Thr Gly Phe Glu Gly lle Ala Thr Glu Gln Met Gly

 145
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 155
 160

 Arg Ile Ser Leu Ile Thr Ser Ile Ser Cys Lys Leu
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 170

<210> 4039

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4039

Met Met Lys Ile Pro Lys Gly Met Ala Thr Lys Ala Lys Ile Asp Lys

1 5 10 15

Trp Asp Leu 11e Lys Leu Lys Ser Phe Cys Thr Ala Lys Glu Thr Thr
20 25 30

The Arg Val Asn Arg Gln Pro Thr Lys Trp Glu Lys Asn Phe Glu He
35 40 45

Tyr Leu Ser Asp Lys Gly Leu Ile Ser Arg Ile Tyr Lys Glu Leu Lys
50 55 60

Gln lle Tyr Lys Lys Lys Thr Asn Asn Ser lle Arg Asn Trp Ala Lys 65 70 75 80

Asp Met Asn Arg His 11e Ser Lys Glu Asp 11e Tyr Ala Ala Thr Lys 85 90 95

His Met Arg Lys Ser Ser Thr Ser Leu Val 11e Arg Glu Met Gln 11e
100 105 110

Lys Thr Thr Met Arg His His Leu Thr Ser Val Lys Met Ala 11e 11e
115 120 125

Lys Lys Ser Gly Asn Asn Arg Phe Trp Arg Glu Cys Gly Glu Ile Glu 130 135 140

Met Val Leu His Cys Trp Trp Glu Cys Lys Leu Val Gln Pro Leu Trp 145 150 155 160

Lys Thr Val Trp

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Arg Thr Phe His Pro Thr Thr Ala Glu Tyr Thr Leu Tyr Ser Thr Val

His Gly Thr Phe Ser Lys Ile Asp His Met Ile Gly His Lys Met Ser Phe Asn Lys Phe Lys Lys Thr Glu Ile Ile Ser Ser Thr Leu Ser Asp His Ser Glu 11e Lys Leu Glu 11e Asn Ser Arg Arg Asn Leu Gln Asn His Ala Asn Thr Arg Lys Leu Asn Asn Leu Leu Leu Asn Glu His Trp Val Lys Asn Glu Ile Lys Met Glu Ile <210> 4042 <211> 506 <212> PRT <213> Homo sapiens <400> 4042 Met Ile Met Ala Ser Phe Phe Leu Leu Arg Arg Lys Lys Ser Lys Ser Arg Ser Arg Ser His Glu Arg Lys Arg Ser Lys Ser Lys Glu Arg Lys Arg Ser Arg Asp Arg Glu Arg Lys Lys Ser Lys Ser Arg Glu Arg Lys Arg Ser Arg Ser Lys Glu Arg Arg Ser Arg Ser Arg Ser Arg Asp Arg Arg Phe Arg Gly Arg Tyr Arg Ser Pro Tyr Ser Gly Pro Lys Phe Asn Ser Ala lle Arg Gly Lys lle Gly Leu Pro His Ser Ile Lys Leu

Ser Arg Arg Arg Ser Arg Ser Lys Ser Pro Phe Arg Lys Asp Lys Ser

Pro Val Arg Glu Pro Ile Asp Asn Leu Thr Pro Glu Glu Arg Asp Ala

Arg Thr Val Phe Cys Met Gln Leu Ala Ala Arg lle Arg Pro Arg Asp

	130	1				135					140				
Leu	Glu	Glu	Phe	Phe	Ser	Thr	Val	Gly	Lys	Va]	Arg	Asp	Val	Arg	Met
145					150					155					160
He	Ser	Asp	Arg	Asn	Ser	Arg	Arg	Ser	Lys	Gly	11e	Ala	Tyr	Val	Glu
				165					170					175	
Phe	Val	Asp	Val	Ser	Ser	Val	Pro	Leu	Ala	lle	G1 y	Leu	Thr	Gly	Gln
			180					185					190		
Arg	Val	Leu	G] y	Val	Pro	He	He	Val	Gln	Ala	Ser	G1n	Ala	Glu	Lys
		195					200					205			•
Asn	Arg	Ala	Ala	Ala	Met	Ala	Asn	Asn	Leu	Gln	Lys	Gly	Ser	Ala	Gly
	210					215					220				
Pro	Met	Arg	Leu	Tyr	Val	Gly	Ser	Leu	His	Phe	Asn	He	Thr	Glu	Asp
225					230					235					240
Met	Leu	Arg	Gly	He	Phe	Glu	Pro	Phe	Gly	Arg	He	Glu	Ser	He	Gln
				245					250					255	
Leu	Met	Met	Asp	Ser	Glu	Thr	Gly	Arg	Ser	Lys	Gly	Tyr	Gly	Phe	Пе
			260					265					270		
Thr	Phe		Asp	Ser	Glu	Cys	Ala	Lys	Lys	Ala	Leu	Glu	Gln	Leu	Asn
		275					280					285			
Gly		Glu	Leu	Ala	Gly		Pro	Met	Lys	Val		His	Val	Thr	Glu
_	290				_	295	_				300				
	Ihr	Asp	Ala	Ser		Ala	Ser	Ser	Phe		Asp	Ser	Asp	Glu	
305	,	TI	C.I.		310	,	0.7	m	m.	315					320
GIU	Arg	Inr	61 y		Asp	Leu	61 y	lhr		Gly	Arg	Leu	Gln		Met
Ala	A 20.00	1	A 1 -	325	C1	T1 .	C1	1	330		В	D	. 1	335	6.1
мта	Arg	Leu		GIU	GIŸ	inr	61 y		GIN	11e	Pro	Pro	Ala	Ala	61n
Gln	Ala	Lou	340	Mot	Sor	Clu	Can	345	41a	Dha	C1	A 1	350 V-1	A 1 .	C1
0111	ма	355	OIII	MC: L	361	U.I.y	360	Leu	міа	гие	GIŸ	365	Val	АТА	GIU
Phe	Ser		Val	lle	Asn	Len		Thr	Λησ	Lou	Sor		Gln	Than	Cl.,
1110	370	1110			пор	375	OIII	1111	Mg	Leu	380	0111	OIII	1111	014
Ala		Ala	Leu	Ala	Ala		Ala	Ser	Val	Gln		Len	Ala	Thr	Gln
385					390					395		Lea	,,,,	1113	400
	Phe	G1n	Leu	Ser		Met	Phe	Asn	Pro		Thr	Glu	Glu	Glu	
-				405					410	•				415	
Glv	Tro	Asp	Thr		He	Lvs	Asp	Asn		He	Glu	Glu	Cvs		lvs

His Gly Gly Val Ile His Ile Tyr Val Asp Lys Asn Ser Ala Gln Gly Asn Val Tyr Val Lys Cys Pro Ser Ile Ala Ala Ala Ile Ala Ala Val Asn Ala Leu His Gly Arg Trp Phe Ala Gly Lys Met Ile Thr Ala Ala Tyr Val Pro Leu Pro Thr Tyr His Asn Leu Phe Pro Asp Ser Met Thr Ala Thr Gln Leu Leu Val Pro Ser Arg Arg <210> 4043 <211> 123 <212> PRT <213> Homo sapiens <400> 4043 Met Trp Phe Leu Arg Arg Lys His Ala Gly Thr Ala Ile Pro Ser Arg Leu Glu Glu His Thr Asp Ala Gly Val Ser Glu Pro Asp Leu Gly Ser

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Met Pro Ser Ala Leu Ala Ile Phe Thr Cys Arg Pro Asn Ser His Pro

Phe Gln Glu Arg His Val Tyr Leu Asp Glu Pro 11e Lys Ile Gly Arg

10

			20					25					30		
Ser	Val	Ala	Arg	Cys	Arg	Pro	Ala	Gln	Asn	Asn	Ala	Thr	Phe	Asp	Cys
		35					40					45			
Lys	Val	Leu	Ser	Arg	Asn	His	Ala	Leu	Val	Trp	Phe	Asp	His	Lys	Thr
	50					55					60				
Gly	Lys	Phe	Tyr	Leu	Gln	Asp	Thr	Lys	Ser	Ser	Asn	Gly	Thr	Phe	He
65					70					75					80
Asn	Ser	Gln	Arg	Leu	Ser	Arg	Gly	Ser	Glu	Glu	Ser	Pro	Pro	Cys	Glu
				85					90					95	
Πle	Leu	Ser	Gly	Asp	Ile	Ile	Gln	Phe	Gly	Val	Asp	Val	Thr	Glu	Asn
			100					105					110		
Thr	Arg	Lys	Val	Thr	His	Gly	Cys	He	Val	Ser	Thr	11e	Lys	Leu	Phe
		115					120					125			
Leu	Pro	Asp	Gly	Met	Glu	Ala	Arg	Leu	Arg	Ser	Asp	Val	11e	His	Ala
	130					135					140				
Pro	Leu	Pro	Ser	Pro	Val	Asp	Lys	Val	Ala	Ala	Asn	Thr	Pro	Ser	Met
145					150					155					160
Tyr	Ser	Gln	G]u	Leu	Phe	Gln	Leu	Ser	Gln	Tyr	Leu	Gln	Glu	Ala	Leu
				165					170					175	
His	Arg	Glu	Gln	Met	Leu	Glu	Gln	Lys	Leu	Ala	Thr	Leu	Gln	Arg	Leu
			180					185					190		
Leu	Ala	lle	Thr	Gln	Glu	Ala	Ser	Asp	Thr	Ser	Trp	Gln	Ala	Leu	He
		195					200					205			
Asp		Asp	Arg	Leu	Leu	Ser	Arg	Leu	Glu	Val		Gly	Asn	Gln	Leu
	210					215					220				
	Ala	Cys	Ser	Lys		Gln	Thr	Glu	Asp		Leu	Arg	Lys	Glu	
225					230				_	235					240
He	Ala	Leu	GIn		Asp	Lys	His	Asn		Glu	Thr	Thr	Ala		Glu
0				245		6.1	0.1		250	61				255	
Ser	Leu	Arg		Val	Leu	Gln	Glu		He	61u	Val	Val		Lys	Leu
	0.1		260					265	m.	61		<i>a</i> .	270	m.	
Ser	Glu		Glu	Arg	Ser	Leu		Asn	lhr	Glu	Asp		Cys	lhr	His
1	1	275	м :	٨	C 1	4	280	C1	C l	C I		285	C1	ı	4.7
Leu		Glu	Met	Asn	61 u	Arg	ınr	GIn	G.Lu	61u		Arg	Glu	Leu	Ala
Acr	290	Ťve	Acr	C1 v	Λ1 e.	295 Val	Acs	C1	11.	1	300	1	Sor	Acr	Lva
asu	LVS	1 4 1	ASIL	UIV	MIA	V (1 1	$\alpha s =$	CHILL	1 1 (-)	1. V S	ASD	1.690	') (, I	ASD	1. V S

305					310					315					320
Leu	Lys	Val	Ala	Glu	Gly	Lys	Gln	Glu	Glu	lle	Gln	Gln	Lys	Gly	G1r
				325					330					335	
Ala	Glu	Lys	Lys	Glu	Leu	Gln	His	Lys	Πe	Asp	Glu	Met	Glu	Glu	Lys
			340					345				,	350		
Glu	Gln	Glu	Leu	Gln	Ala	Lys	He	Glu	Ala	Leu	Gln	Ala	Asp	Asn	Asp
		355					360					365			
Phe	Thr	Asn	G1u	Arg	Leu	Thr	Ala	Leu	Gln	Val	Arg	Leu	Glu	His	Leu
	370					375					380				
Gln	Glu	Lys	Thr	Leu	Lys	Glu	Cys	Ser	Ser	Leu	Gly	He	Gln	Val	Asp
385					390					395					400
Asp	Phe	Leu	Pro	Lys	He	Asn	Gly	Ser	Thr	Glu	Lys	Glu	Lys	Leu	Пє
				405					410					415	
Val	Glu	Gly	His	Leu	Thr	Lys	Ala	Val	Glu	Glu	Thr	Lys	Leu	Ser	Lys
			420					425					430		
Glu	Asn	Gln	Thr	Arg	Ala	Lys	Glu	Ser	Asp	Phe	Ser	Asp	Thr	Leu	Ser
		435					440					445			
Pro	Ser	Lys	Glu	Lys	Ser	Ser	Asp	Asp	Thr	Thr	Asp	Ala	Gln	Met	Asp
	450					455					460				
Glu	Gln	Asp	Leu	Asn	Glu	Pro	Leu	Ala	Lys	Val	Ser	Leu	Leu	Lys	Gly
465					470					475					480
Thr	Leu	Thr	Cys	Phe	Tyr	Asp	Пе	Val	Asn	Gln	Gly	He	Lys	Ser	Pro
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Phe	Ala	He	Lys	Ser	Val	Leu	Asp	Пе	Met						
			500					505							

<210> 4046

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<212> PRT

<213> Homo sapiens

<400> 4046

Met Pro Pro Thr Ser Gln Leu Pro Thr Leu Asp Thr Ala Leu Gln Thr
1 5 10 15

Arg His Pro Trp Ala Leu Ser Ile Thr Arg Gly Ala Thr Val Ser Arg Ala Pro Leu Gln Gly Arg Val Thr Ala Ile Val Pro Lys Ala Ser Cys Leu His Gly Thr Pro Arg Cys Phe Leu Gln Arg Gly Val Pro Ser Trp Ser Ser Pro Gln Thr Trp Ser Trp Pro Ala Pro Ser Gln Pro Phe Gln Gln Gly Pro Arg Leu Met Thr Ala Pro Ala Pro His Pro Gly Ser Gly Thr Arg Thr Ser Ser His His Pro Ser Pro Leu Arg Arg Ser Ser Leu Ala Val Gln Val Pro lle Ser Gly Glu Gly Met Trp Glu Gly Asp Arg Glu Gly Leu Gly Ser Lys <210> 4047 <211> 203 <212> PRT <213> Homo sapiens

<400> 4047

Met lle lle Leu Ile Val Asn lle Gly lle Leu Asn Val Lys Cys Gln

Thr Asn Val Thr Tyr Ala Gly Ala Leu Ala Leu Leu Ile Arg Phe Trp

Phe Lys Phe Cys His Ser Ser Ser Trp Val Arg Gly Phe Ala Val Ser

Phe Phe Phe Trp Thr Leu Asp Pro Glu Pro Val Leu Ala Ser Gln Phe

Leu Ser Leu Tyr Pro Phe Pro Ser Val Ser Ser Ser Leu Phe Pro Leu

Ser Leu Phe Val Phe Leu 11e Ser Phe Cys Phe Ser Glu Tyr Leu His

Phe Tyr Leu Cys Val Ser Val Tyr Phe Ser Val Tyr Leu Ser Val Leu 100 Gln Ser Val Phe Leu Phe Leu Ala Leu Arg Gln Cys Leu Phe Leu Ser 115 120 125 Ser Leu Ser Cys Ser Ala Met Ala Ile Ser Thr Ala Leu Phe Leu Thr 135 Leu Ile Phe Gly Leu Cys Val Ser Pro Ser His Phe Leu Ser His Ser 145 150 155 Val Ser Val Ser Ile Ser Val Ser Pro Leu Leu Cys Pro Gln Ser Leu 165 170 Cys Leu Pro Glu Ala Leu Phe Leu Ser Leu Leu Cys Cys Val Leu Asn 185 190 Leu Ser Val Ser Leu Arg Leu Tyr Phe Cys Leu 195 200

<210> 4048

<211> 145

<212> PRT

<213> Homo sapiens

<400> 4048

Met Leu Cys Cys Leu Asp 11e Ser Ser Thr Arg Tyr Pro Lys Ser Ser

1 5 10 15

Leu Ser Ser Ser Lys Phe His Arg Ser Leu Gly Gln Gly Gln Met Leu 20 25 30

Pro Val Cys Leu His Ser Lys Ser Asp Leu Tyr Ser Ser Gln Lys 35 40 45

Val Pro His Leu His Leu Arg Leu His Gln Pro Arg Leu His Cys Thr 50 55 60

Tyr Tyr Gln Tyr Phe Gly Gln Gly His Ser Thr Ser Leu Tyr Glu
65 70 75 80

Val Pro Asn Phe Pro Thr Ser Pro Cys Leu Leu Ser Pro Pro Asn
85 90 95

Cys Ser Asn Leu Cys Leu Leu Pro Ser Ser Lys Val Ala Ser Thr Tyr 100 105 110

```
Leu Gly 11e Phe Thr Ala Ala Pro His Ser Trp Tyr Gln Phe Thr Val
        115
                             120
                                                 125
Leu Ile Cys Ser Arg Ala Ala Ile Arg Thr Asp Ser Gly Leu Gly Asn
                        135
                                             140
Leu
145
<210> 4049
<211> 102
<212> PRT
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Met Ala Thr Gly Val Cys Ser Asp Phe Ser Cys Val Glu Pro Ser Gly
                                     10
Cys Ala Ala Trp Ala Gly Gly Met Leu Leu Ala Gly Gln Asp Val His
                                 25
Gln Ala Gly Cys Gly Cys Thr Gly Leu Lys Gly Cys Phe Gly Arg Pro
         35
                             40
Trp Cys Cys Arg Ala Ala Gly Arg Arg Val Leu Ala Arg Ser Gln Leu
                         55
                                             60
Ser Leu Arg Phe Leu Leu Pro Leu Gly Val Cys Gly Cys Gly Gln 11e
65
                     70
                                          75
                                                              80
Leu Arg Gly Ser Arg Pro Trp Glu Pro Thr Val Ser Gly Gly Trp Glu
                                     90
                                                          95
Phe Leu Val Arg Gln Thr
            100
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<210> 4050

<211> 924

<212> PRT

<213> Homo sapiens

<400> 4050

Met	Arg	Ser	Lys	Asp	He	Glu	Ala	Ser	Gly	Phe	Asn	Gly	Thr	Ala	Ala
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Phe	Met	Glu	Val	Arg	Va]	Gln	Ser	He	Va]	Val	Glu	Phe	He	Leu	Thr
			20					25					30		
His	Val	Asp	Gln	Leu	Phe	Gly	Gly	Ala	Ala	Leu	Ser	Gly	Gly	Glu	Val
		35					40					45			
Glu	Ser	Gly	Trp	Arg	Ser	Leu	Pro	G1 y	Thr	Arg	Ala	Ser	G} y	Ser	Pro
	50					55					60				
Glu	Asp	Leu	Met	Pro	Arg	Pro	Leu	Pro	Tyr	His	Leu	Pro	Ser	lle	Leu
65					70					75					80
G]n	Ala	Gly	Asp	Gly	Pro	Pro	Gln	Met	Arg	Pro	Tyr	His	Thr	He	He
				85					90					95	
Glu	He	Ala	Glu	His	Lys	Arg	Lys	Gly	Ser	Leu	Lys	Val	Arg	Lys	Trp
			100					105					110		
Arg	Ser		Phe	Asn	Leu	Gly	Arg	Ser	G] y	His	Glu	Thr	Lys	Arg	Lys
	_	115					120					125			
Leu		Arg	Gly	Ala	Glu		Arg	G] u	Asp	Lys	Ser	Asn	Lys	Gly	Thr
	130					135					140				
	Arg	Pro	Ala	Lys		Met	Asp	Ser	Leu		Ala	Ala	Ala	Gly	
145	Δ	63	D	C1	150		1: 1	61	r>	155					160
ser	Asp	Glu	Pro		61 y	Leu	Val	GIy		Ser	Ser	Pro	Arg		Ser
Dro	Lan	1	Dua	165	C	1	C 1	1	170	C	7.1	C.T.		175	6.1
110	Leu	Leu	180	GTU	261.	Leu	GJU		Asp	2er	He	Glu		Ala	6Ju
G1v	Glu	Gln		Pro	Clu	Alo	Clu	185	Lau	C1	Gly	Thom	190	C	C1
01)	O, u	195	Olu	110	OTU	ма	200	ма	Leu	01 y	GIŸ	205	ASII	261.	Giu
Pro	G1 v		Pro	Arg	Ala	G1 v		Ser	Ala	Ha	Arg		Glv	Glv	Sor
	210			8		215	8	50,	7110	110	220	AIG	015	01 y	1961
Ser		Ala	Glu	Arg	Cvs		Glv	Val	llis	Пе	Ser	Asn	Pro	Tvr	Asn
225	Ü				230		***			235		.10,5	110	.,,	240
Val	Asn	Leu	Pro	Leu		He	Thr	Ser	He		Ser	Val	Pro	Pro	
				245					250					255	
He	11e	Ser	Asn	Val	Ser	Leu	Ala	Arg		Thr	Arg	G1y	Leu		Cys
			260					265			-	-	270		-
Pro	Ala	Leu	Gln	His	Arg	Pro	Ser	Pro	Ala	Ser	Ser	Pro	Gly	Pro	G1 y
		275					280					285			-

Pro	Gly	Leu	Gly	Pro	Gly	Pro	Pro	Asp	Glu	Lys	Leu	Glu	Ala	Ser	Prọ
	290					295					300				
Ala	Ser	Ser	Pro	Leu	Ala	Asp	Ser	Gly	Pro	Asp	Asp	Leu	Ala	Pro	Ala
305					310					315					320
Leu	Glu	Asp	Ser	Leu	Ser	Gln	Glu	Val	Gln	Asp	Ser	Phe	Ser	Phe	Leu
				325					330					335	
Glu	Asp	Ser	Ser	Ser	Ser	G]u	Pro	Glu	Trp	Val	Gly	Ala	Glu	Asp	Gly
			340					345					350		
Glu	Val	Ala	Gln	Ala	Glu	Ala	Ala	Gly	Ala	Ala	Phe	Ser	Pro	Gly	Glu
		355					360					365			
Asp	Asp	Pro	Gly	Met	Gly	Tyr	Leu	Glu	Glu	Leu	Leu	Gly	Val	Gly	Pro
	370					375					380				
Gln	Val	Glu	Glu	Phe	Ser	Val	Glu	Pro	Pro	Leu	Asp	Asp	Leu	Ser	Leu
385					390					395					400
Asp	Glu	Ala	Gln	Phe	Val	Leu	Ala	Pro	Ser	Cys	Cys	Ser	Leu	Asp	Ser
				405					410					415	
Ala	Gly	Pro	Arg	Pro	Glu	Val	Glu	Glu	Glu	Asn	Gly	Glu	Glu	Val	Phe
			420					425					430		
Leu	Ser	Ala	Tyr	Asp	Asp	Leu	Ser	Pro	Leu	Leu	Gly	Pro	Lys	Pro	Pro
		435					440					445			
He	Trp	Lys	Gly	Ser	Gly	Ser	Leu	G] u	Gly	Glu	Ala	Ala	Gly	Cys	Gly
	450					455					460				
Arg	Gln	Ala	Leu	G1 y	Gln	Gly	Gly	Glu	Glu	G1n	Ala	Cys	Trp	Glu	Val
465					470					475					480
G1y	Glu	Asp	Lys	Gln	Ala	Glu	Pro	Gly	Gly	Arg	Leu	Asp	He	Arg	Glu
				485					490					495	
Glu	Ala	Glu		Ser	Pro	Glu	Thr		Va]	G1u	Ala	Gly	Lys	Ala	Ser
			500					505					510		
Glu	Asp		Gly	G] u	Ala	G1 y		Ser	Gln	Glu	Thr		Val	Arg	Leu
		515					520					525			
Arg		G] y	Ser	Arg	Glu		Thr	Glu	Ala	Lys	Glu	Glu	Lys	Ser	Lys
	530					535					540				
	GIn	Lys	Lys	Ala		Ser	Met	Glu	Ala		Gly	Va]	Glu	Glu	
545	0.1		0.1	m	550		~ •	_		555					560
Gly	GIy	Asp	GIu		Thr	Asp	Glu	Lys		Lys	Glu	Пе	G]u		Glu
				565					570					575	

Glu	Asp	Glu	Gln	Arg	Glu	Glu	Ala	Gln	Val	Glu	Ala	Gly	Arg	Asp	Leu
			580					585					590		
Glu	Gln	Gly	Ala	Gln	Glu	Λsp	Gln	Val	Ala	Glu	Glu	Lys	Trp	Glu	Val
		595					600					605			
Val	Gln	Lys	Gln	Glu	Ala	Glu	Gly	Val	Arg	Glu	Asp	Glu	Asp	Lys	Gly
	610					615					620				
Gln	Arg	Glu	Lys	Gly	Tyr	His	Glu	Ala	Arg	Lys	Asp	Gln	Gly	Asp	G1 y
625					630					635					640
Glu	Asp	Ser	Arg	Ser	Pro	Glu	Ala	Ala	Thr	Glu	Gly	Gly	Ala	Gly	Glu
				645					650					655	
Val	Ser	Lys	Glu	Arg	Glu	Ser	Gly	Asp	Gly	Glu	Ala	Glu	Gly	Asp	Gln
			660					665					670		
Arg	Ala	Gly	Gly	Tyr	Tyr	Leu	Glu	Glu	Asp	Thr	Leu	Ser	Glu	G1y	Ser
		675					680					685			
Gly	Val	Ala	Ser	Leu	Glu	Val	Asp	Cys	Ala	Lys	Glu	Gly	Asn	Pro	His
	690					695					700				
Ser	Ser	Glu	Met	Glu	Glu	Val	Ala	Pro	Gln	Pro	Pro	Gln	Pro	Glu	Glu
705					710					715					720
Met	Glu	Pro	Glu	Gly	Gln	Pro	Ser	Pro	Asp	Gly	Cys	Leu	Cys	Pro	Cys
				725					730					735	
Ser	Leu	Gly	Leu	Gly	Gly	Val	Gly	Met	Arg	Leu	Ala	Ser	Thr	Leu	Val
			740					745					750		
Gln	Val	G1n	Gln	Val	Arg	Ser	Va]	Pro	Val	Val	Pro		Lys	Pro	Gln
		755					760					765			
Phe		Lys	Met	Pro	Ser		Met	Cys	Ser	Lys	He	His	Val	Ala	Pro
	770					775					780				
	Asn	Pro	Cys	Pro		Pro	G1 y	Arg	Leu	Asp	G] y	Thr	Pro	Gly	
785					790					795					800
Arg	Ala	Trp	Glu		Arg	Ala	Ser	Arg		Ser	Trp	Arg	Asn		G1 y
_				805					810					815	
Ser	Leu	Ser		Asp	Ala	Ala	Val		Leu	Ala	Arg	Asp		GIn	Arg
 .	0.1		820	0.1				825			_		830		
Thr	GJu		GIn	Gly	Val	Arg	_	Thr	GIn	Thr	Cys		Glu	Gly	Gly
	T	835	•		D		840	C	Б	0		845			
Asp		Cys	Leu	He	Pro		Thr	Ser	Pro	Cys		Met	He	Ser	Ala
	850					855					860				

<210> 4051

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4051

Met Ile Leu Ser Cys Ile Asn Cys Gln Gly Asp Asn Arg Arg Cys Val 1 5 10 15

Pro Arg Pro Pro Leu Val Ser Arg Leu Glu Glu Ser Pro Gly Trp Cys
20 25 30

lle Arg Ala Arg Gln Arg Gly Arg Pro Ser Gln Leu His Cys Lys Gln
35 40 45

Phe Gln Leu His Ser Gln Gly Gln Ala Pro Trp Lys Arg Leu Leu Phe 50 55 60

Asn Cys Trp Pro Phe Gln Pro His Cys Ala Asp Ser Ser Phe Ser Leu 65 70 75 80

Gly Tyr Gln Ser Val Pro Leu Gln Phe Thr 11e Val Phe Val Phe Leu 85 90 95

Ser Phe Thr Asn Cys Asp Met Ser Lys Leu Asn Tyr Ala lle 100 105 110

<210> 4052

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4052 Met His Ala Gly Lys Arg Ser Pro Leu Thr Gln Ser 11e Ser Cys Val 5 10 Cys Leu Pro Glu Leu Gly Ala Leu Trp Glu Ile Glu Ser Ala Arg Val 25 Asn Leu Arg Val Ser Gly Arg Glu Ala Ser Arg Glu Met Glu Ser Ser 35 40 45 Pro Arg Pro His Arg Ile Ala Gly Val Lys Arg Phe Leu Lys His Ala 55 Gly Lys Trp Ser Leu Arg Trp Phe Leu Ser Pro Arg Trp Ile Leu Gln 70 75 Phe Arg Arg Trp Ala Arg Lys Trp Ser Arg Phe Thr Arg Ser Ser Phe 90 Gln Val Arg Trp Ala Ala Val Pro Ala Gly Lys Cys Ser Gln His Gln 100 105 Gly Leu Ser Ala Val Ala Thr Ala Ser Pro Gly Val Phe Trp Glu Met 115 120 125 Glu Phe Asp Val Ser Ser Pro Leu Thr Glu Gly Ala Gly Ser Pro Met 130 135 140 Ser Ser Lys His Ala Gly Glu 150 <210> 4053 <211> 150 <212> PRT <213> Homo sapiens <400> 4053 Met Arg Ile Pro Leu Pro His Leu Met Ser Ser Tyr Ile Lys Asp Leu 10

Cys Arg Ser Gly Ile Cys Glu Ser Leu Val Ser Asp Ala Val Leu Phe

Ser Leu Thr Pro Val 11e Pro Glu Leu Trp Glu Ala Glu Thr Gly Arg

40

30

45

20

Ser Pro Asp Val Gly Ser Ser Arg Pro Ser Trp Pro Thr Trp Arg Ser 50 55 Leu Ser Leu Leu Lys Ile Gln Lys Leu Ala Ser Arg Gly Ser Ala Cys 65 70 75 80 Leu Trp Ser Gln Leu Leu Gly Ser Leu Arg Gln Glu Asn Cys Leu Asn 90 Leu Gly Gly Gly Cys Ser Glu Pro Lys Leu Cys Arg Cys Thr Pro 100 105 110 Ala Trp Val Thr Val Arg Ile Cys Leu Lys Lys Lys Lys Lys Asn 115 120 125 Trp Leu Gly Ala Val Ala Leu Ala Ser Asn Pro Asp Thr Leu Arg Gly 135 140 Leu Val Trp Arg Ile Ala 145 150

<210> 4054

<211> 1260

<212> PRT

<213> Homo sapiens

<400> 4054

Met Gly Val Tyr Pro Thr Asp Leu Thr Leu Gln Leu Leu Ala Val Arg

1 5 10 15

Arg Lys Ser Arg Leu Arg Asp Pro Gly Leu Gln Gln Thr Leu Arg Gly
20 25 30

Gln Leu Arg Leu Leu Glu Asn Asp Ser Arg Glu Met Ala Arg Val Leu 35 40 45

Gly Glu Leu Ser Ala Arg Leu Leu Ser Ile His Ser Asp Gln Asp Arg 50 55 60

11e Val Val Thr Phe Lys Thr Phe Glu Glu Ile Trp Lys Phe Ser Thr 65 70 75 80

Tyr His Ala Leu Gly Phe Thr His His Cys Leu Ala Asn Leu Leu Met 85 90 95

Asp Gln Ala Phe Trp Leu Leu Leu Pro Ser Glu Glu Glu Glu Thr Ala 100 105 110

116	GIn	val	ніѕ	vai	Asp	Glu	Asn	Ala	Leu	Arg	Leu	lhr	His	Glu	Ser
		115					120					125			
Leu	Leu	He	Gln	Glu	G]y	Pro	Phe	Phe	Val	Leu	Cys	Pro	Asp	His	His
	130					135					140				
Val	Arg	Va]	Met	Thr	Gly	Pro	Arg	Asp	Ala	Gly	Asn	Gly	Pro	Gln	Ala
145					150					155					160
Leu	Arg	Gln	Ala	Ser	Gly	Ala	Pro	Gln	Gly	Glu	Ala	Ala	Pro	Glu	Thr
				165					170					175	
Asp	Ser	Ser	Pro	Pro	Ser	Pro	Ser	Val	Ser	Ser	Glu	Glu	Val	Ala	Val
			180					185					190		
Ala	Ala	Ala	Pro	Glu	Pro	Leu	He	Pro	Phe	His	Gln	Trp	Ala	Leu	Arg
		195					200					205			
He	Pro	Gln	Asp	Pro	He	Asp	Asp	Ala	Met	Gly	G1 y	Pro	Val	Met	Pro
	210					215					220				
Gly	Asn	Pro	Leu	Met	Ala	Val	Gly	Leu	Ala	Ser	Ala	Leu	Ala	Asp	Phe
225					230					235					240
Gln	Gly	Ser	Gly	Pro	Glu	Glu	Met	Thr	Phe	Arg	Gly	Gly	Asp	Leu	He
				245					250					255	
Glu	He	Leu	Gly	Ala	Gln	Va]	Pro	Ser	Leu	Pro	Trp	Cys	Va1	Gly	Arg
			260					265					270		
His	Ala	Ala	Ser	Gly	Arg	Val	Gly	Phe	Val	Arg	Ser	Ser	Leu	lle	Ser
		275					280					285			
Met	GIn	Gly	Pro	Val	Ser	Glu	Leu	Glu	Ser	Ala	He	Phe	Leu	Asn	Glu
	290					295					300				
Glu	Glu	Lys	Ser	Phe	Phe	Ser	Glu	Gly	Cys	Phe	Ser	Glu	Glu	Asp	Ala
305					310					315					320
Arg	Gln	Leu	Leu	Arg	Arg	Met	Ser	Gly	Thr	Asp	Val	Cys	Ser	Va]	Tyr
				325					330					335	
Ser	Leu	Asp	Ser	Val	Glu	Glu	Ala	Glu	Thr	Glu	Gln	Pro	G]n	Glu	Lys
			340					345					350		
Glu	Пе	Pro	Pro	Pro	Cys	Leu	Ser	Pro	Glu	Pro	G]n	G]u	Thr	Leu	Gln
		355					360					365			
Lys	Val	Lys	Asn	Val	Leu	Glu	Gln	Cys	Lys	Thr	Cys	Pro	Gly	Cys	Pro
	370					375					380				
G1n	Glu	Pro	Ala	Ser	Trp	Gly	Leu	Cys	Ala	Ala	Ser	Ser	Asp	Val	Ser

385					390					395					400
Leu	Gln	Asp	Pro	Glu	Glu	Pro	Ser	Phe	Cys	Leu	Glu	Ala	Glu	Asp	Asp
				405					410					415	
Trp	Glu	Asp	Pro	Glu	Ala	Leu	Ser	Ser	Leu	Leu	Leu	Phe	Leu	Asn	Ala
			420					425					430		
Pro	Gly	Tyr	Lys	Ala	Ser	Phe	Arg	Gly	Leu	Tyr	Asp	Val	Ala	Leu	Pro
		435					440					445			
Trp	Leu	Ser	Ser	Val	Phe	Arg	Ser	Phe	Ser	Asp	Glu	Glu	Glu	Leu	Thr
	450					455					460				
Gly	Arg	Leu	Ala	Gln	Ala	Arg	Gly	Ala	Ala	Lys	Lys	Ala	Gly	Leu	Leu
465					470					475					480
Met	Ala	Leu	Ala	Arg	Leu	Cys	Phe	Leu	Leu	Gly	Arg	Leu	Cys	Ser	Arg
				485					490					495	
Arg	Leu	Lys	Leu	Ser	Gln	Ala	Arg	Val	Tyr	Phe	Glu	Glu	Ala	Leu	Gly
			500					505					510		
Ala	Leu	Glu	Gly	Ser	Phe	Gly	Asp	Leu	Phe	Leu	Val	Val	Ala	Val	Tyr
		515					520					525			
Ala	Asn	Leu	Ala	Ser	He	Tyr	Arg	Lys	Gln	Lys	Asn	Arg	Glu	Lys	Cys
	530					535					·540				
Ala	Gln	Val	Val	Pro	Lys	Ala	Met	Ala	Leu	Leu	Leu	Gly	Thr	Pro	Asp
545					550					555					560
His	He	Cys	Ser	Thr	Glu	Ala	Glu	G1 y	Glu	Leu	Leu	Gln	Leu	Ala	Leu
				565					570					575	
Arg	Arg	Ala	Va]	G] y	Gly	Gln	Ser	Leu	Gln	Ala	Glu	Ala	Arg	Ala	Cys
			580					585					590		
Phe	Leu	Leu	Ala	Arg	His	His	Val	His	Leu	Lys	Gln	Pro	Glu	Glu	Ala
		595					600					605			
Leu	Pro	Phe	Leu	Glu	Arg	Leu	Leu	Leu	Leu	His	Λrg	Asp	Ser	Gly	Ala
	610					615					620				
Pro	Glu	Ala	Ala	Trp	Leu	Ser	Asp	Cys	Tyr	Leu	Leu	Leu	Ala	Asp	11e
625					630					635					640
Tyr	Ser	Arg	Lys	Cys	Leu	Pro	His	Leu	Val	Leu	Ser	Cys	Val	Lys	Val
				645					650				٠	655	
Ala	Ser	Leu	Arg	Thr	Arg	Gly	Ser	Leu	Ala	G1 y	Ser	Leu	Arg	Ser	Val
			660					665					670		
Asn	Leu	Val	Leu	Gln	Asn	Ala	Pro	Gln	Pro	His	Ser	Leu	Pro	Ala	Gln

		675					680					685			
Thr	Ser	His	Tyr	Leu	Arg	Gln	Ala	Leu	Ala	Ser	Leu	Thr	Pro	Gly	Thr
	690					695					700				
Gly	Gln	Ala	Leu	Cys	Gly	Pro	Leu	Tyr	Thr	Ser	Leu	Ala	Gln	Leu	Tyr
705					710					715					720
Ser	His	His	Gly	Cys	His	Gly	Pro	Ala	lle	Thr	Phe	Met	Thr	Gln	Ala
				725					730					735	
Val	Glu	Ala	Ser	Ala	11e	Ala	Gly	Val	Arg	Ala	He	Val	Asp	His	Leu
			740					745					750		
Val	Ala	Leu	Ala	Trp	Leu	His	Val	Leu	His	Gly	Gln	Ser	Pro	Val	Ala
		755					760					765			
Leu	Asp	He	Leu	Gln	Ser	Val	Arg	Asp	Ala	Val	Val	Ala	Ser	Glu	Asp
	770					775					780				
	Glu	G] y	Va]	He	Ala	Asn	Met	Val	Ala	Val	Ala	Leu	Lys	Arg	Thr
785					790					795					800
G1 y	Arg	Thr	Arg		Ala	Ala	Glu	Ser		Tyr	Arg	Ala	Leu	Arg	Val
	,			805					810					815	
Ala	Arg	Asp		Gly	G1n	Gln	Arg		Gln	Ala	Val	Gly		Ala	Asn
			820					825					830		
Phe	Gly		Leu	Cys	Leu	His		Gly	Ala	Ser	Arg		Ala	Gln	His
т		835	6.1				840	D1			,	845			
lyr		Leu	Glu	Ala	Val	Arg	Leu	Phe	Ser	Arg		Pro	Leu	GIy	GJu
C	850	Α	Λ	DL.	Tl	855	17 . 1	1		C1	860	C1		,	C
	GIY	Arg	ASP	rne		His	vai	Leu	Leu		Leu	61 y	H]S	Leu	
865	Ana	Cla	C1.,	Duo	870	Cln	C1.	C1	1	875	Т	т	C1	Т	880
1111	AI g	OIII	Oly	885	мта	Gln	GIN	GIV		GIY		I y I	GIU	895	
Leu	Leu	Val	Ala		G1u	Met	Glv	Hie				Gln	Lou		
Leu	LCu	*41	900	101	Oju	MC C	Oly	905	vai	Olu	261	OTH	910	AI g	ліа
Val	Gln	Arø		Cvs	His	Phe	Tyr		Ala	Val	Met	Pro		Glu	Ala
, 41	0.111	915	1,64	0,5	1113	1110	920	501	Mid	, а,	MC t	925	501	Olu	MIG
Gln	Cvs		He	Tvr	His	Glu		Gln	Leu	Ser	Leu		Cvs	Lvs	Val
	930					935	200	•••	1200		940		0,0	2,0	
Ala		Lys	Val	Leu	G1u	Gly	G1n	Leu	Leu	Glu		Пe	Ser	Gln	Leu
945	•	•			950	,				955		-			960
_	Len	Ser	Leu	Glv		Glu	Arø	Ala	Tvr		Ser	Ala	len	Asn	

				965					970					975	
Thr	Lys	Arg	Ser	Leu	Gly	He	Phe	lle	Asp	Leu	Gln	Lys	Lys	Glu	Lys
			980					985					990		
Glu	Ala	His	Ala	Trp	Leu	Gln	Ala	Gly	Lys	He	Tyr	Tyr	He	Leu	Arg
		995					1000					1005			
Gln	Ser	Glu	Leu	Val	Asp	Leu	Tyr	Пе	Gln	Val	Ala	Gln	Asn	Val	Ala
	1010					1015					1020				
Leu	Tyr	Thr	Gly	Asp	Pro	Asn	Leu	Gly	Leu	Glu	Leu	Phe	Glu	Ala	Ala
102	5]	030]	1035]	1040
G1 y	Asp	Ile	Phe	Phe	Asp	Gly	Ala	Trp	Glu	Arg	Glu	Lys	Ala	Val	Ser
				1045					1050					1055	
Phe	Tyr	Arg	Asp	Arg	Ala	Leu	Pro	Leu	Ala	Val	Thr	Thr	Gly	Asn	Arg
			1060					1065					1070		
Lys	Ala	Glu	Leu	Arg	Leu	Cys	Asn	Lys	Leu	Val	Ala	Leu	Leu	Ala	Thr
		1075				-	1080]	1085			
Leu	Glu	Glu	Pro	Gln	G]u	Gly	Leu	Glu	Phe	Ala	His	Met	Ala	Leu	Ala
	1090]	1095				,	1100				
Leu	Ser	He	Thr	Leu	Gly	Asp	Arg	Leu	Asn	Glu	Arg	Val	Ala	Tyr	His
110	5]	110]	1115]	1120
Arg	Leu	Ala	Ala	Leu	Gln	His	Arg	Leu	Gly	His	Gly	Glu	Leu	Ala	Glu
]	1125]	1130					1135	
His	Phe	Tyr	Leu	Lys	Ala	Leu	Ser	Leu	Cys	Asn	Ser	Pro	Leu	Glu	Phe
]	140]	1145					1150		
Asp	Glu	Glu	Thr	Leu	Tyr	Tyr	Val	Lys	Val	Tyr	Leu	Val	Leu	Gly	Asp
		1155					1160					165			
Пe	lle	Phe	Tyr	Asp	Leu	Lys	Asp	Pro	Phe	Asp	Ala	Ala	Gly	Tyr	Tyr
	1170					175					1180				
		Ala	Leu			Ala	Val	Asp	Leu	Gly	Asn	Lys	Lys	Ala	G1n
118			_		190					1195					200
Leu	Lys	He			Arg	Leu	Ala			Tyr	His	Asn		Leu	Leu
				205					210					1215	
Asp	Arg			Ser	Leu	Phe			Gln	Lys	Ala			Phe	Ala
<i>a</i> .,	0.1		220	., .				225					1230		
Thr			Asn	Val	Arg			Asn	Leu	Pro			Pro	Leu	Cys
0.1		235		m			240					245			
G EV	110	Ala	rro	Irp	Leu	Ala	Pro	Ser	His	Pro	Arg				

1250 1255 1260

<210> 4055

<211> 152

<212> PRT

<213> Homo sapiens

<400> 4055

Met Gly Phe Ala Glu Ala Phe Leu Glu His Leu Trp Lys Asn Leu Gln

1 5 10 15

Asp Pro Ser Asn Pro Ala lle lle Arg Gln Ala Ala Gly Asn Tyr lle 20 25 30

Gly Ser Phe Leu Ala Arg Ala Lys Phe 11e Ser Leu Ile Thr Val Lys 35 40 45

Pro Cys Leu Asp Leu Leu Val Asn Trp Leu His Ile Tyr Leu Asn Asn 50 55 60

Gln Asp Ser Gly Thr Lys Ala Phe Cys Asp Val Ala Leu His Gly Pro 65 70 75 80

Phe Tyr Ser Ala Cys Gln Ala Val Phe Tyr Thr Phe Val Phe Arg His
85 90 95

Lys Gln Leu Leu Ser Gly Asn Leu Lys Glu Gly Leu Gln Tyr Pro Gln
100 105 110

Ser Leu Asn Phe Glu Arg Ile Val Met Ser Gln Leu Asn Pro Leu Lys 115 120 125

lle Cys Leu Pro Ser Val Val Asn Phe Phe Ala Ala lle Thr Lys Met 130 135 140

Lys Thr Cys Gly Tyr Gly Trp Trp

145 150

<210> 4056

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4056 Met Leu Cys Trp Leu Ser Leu Pro His Arg Lys Val Phe Ser Phe 5 10 15 Leu Phe Phe Ser Phe Phe Leu Phe Phe Phe Phe Phe Leu Arg Arg 20 25 Thr Leu Pro Leu Leu Thr Arg Leu Glu Cys Ser Gly Thr 11e Ser Ala 40 45 His His Asn Leu Arg Leu Leu Gly Ser Ser Asp Ser Pro Ala Leu Ala 50 55 60 Ser Arg Val Ala Gly Thr Met Gly Ala His Tyr His Ala Trp Leu Ile 70 75 Phe Val Phe Leu Val Glu Thr Lys Phe His Tyr Val Gly Lys Ala Gly 90 Leu Lys Leu Leu Thr Ser 100

<210> 4057 <211> 143 <212> PRT <213> Homo sapiens

<400> 4057

Met Pro Val Ile Pro Ala Leu Trp Glu Ala Glu Ala Gly Gly Ser Leu 5 10 15 Glu Val Arg Gly Ser Gly Pro Ala Trp Pro Thr Trp Trp Asn Pro Val 25 Ser Thr Lys Asn Thr Lys Val Ser Trp Met Trp Trp Arg Val Pro Val 35 45 Val Pro Ala Ala Arg Glu Ala Glu Ala Gly Glu Ala Leu Glu Pro Gly 55 Arg Arg Leu Gln Trp Ala Glu Val Val Ser Leu His Ser Ser Leu 70 75 Gly Val Thr Val Arg Ile Cys Leu Lys Lys Arg Lys Lys Lys Lys 85 90 Asn Pro Arg Lys Asn Lys Glu Thr Gln Met Leu Gly Val Gly Ile Asn

<210> 4058

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4058

Met Arg Lys His 11e Lys Glu Arg Glu Leu Ser Leu Met Glu Gln 11e 1 5 10 15

Lys Glu Phe lle Leu Glu Arg Asn Thr Met Asn Val Pro Thr Val Gly
20 25 30

Lys Pro Phe Ser Gly Arg His Ser Leu Leu Ser Ile Arg Glu Phe Thr 35 40 45

Leu Gly Arg Ser Pro Met Asn Val Met Asn Val Gly Glu Pro Ser Glu 50 55 60

Lys Lys Pro Thr Cys Mct Ile lle Arg Glu Phe Ile Leu Glu Lys Asn 65 70 75 80

Pro He Leu Val Arg Asn Val Gly Lys Thr Ser Ala Glu Val Gln Leu 85 90 95

Leu Leu Asn Thr Arg Glu Phe 11e Leu Glu 11e Asn Ser Arg Asn Arg 100 105 110

Glu lle Lys Glu Phe Ala Glu Cys Phe Ser 115 120

<210> 4059

<211> 132

<212> PRT

<213> Homo sapiens

<400> 4059 Met Glu Ile Ser Ala Pro Ser Gln Gln Arg Gln Gln Ile Ala Glu Ile l 10 Glu Lys Gln Thr Lys Glu Gln Ser Gln Leu Thr Ala Thr Gln Thr Arg 20 25 Thr Val Asn Lys His Gly Asp Glu Ile Ile Thr Ser Thr Thr Ser Asn 40 45 Tyr Glu Thr Gln Thr Phe Ser Ser Lys Thr Glu Trp Arg Val Arg Ala 50 55 60 lle Ser Ala Ala Asn Leu His Leu Arg Thr Asn His lle Tyr Val Ser 75 Ser Asp Asp 11e Lys Glu Thr Gly Tyr Thr Tyr 11e Leu Pro Lys Asn 90 Val Leu Lys Lys Phe 11e Cys 11e Ser Asp Leu Arg Ala Gln Val Ser 100 105 110 Lys Trp Thr Gln Leu Gly His Ser Val Cys Pro Thr His Phe Val Pro 115 120 125 Lys Thr Gln Thr 130 <210> 4060 <211> 271 <212> PRT <213> Homo sapiens <400> 4060 Met Ala Ala Val Glu Lys Arg Arg Gln Ala Val Pro Pro Pro Ala Gly] 5 10 15 Phe Thr Asp Ser Gly Arg Gln Ser Val Ser Arg Ala Ala Gly Ala Ala 25

Glu Ser Glu Glu Asp Phe Leu Arg Gln Val Gly Val Thr Glu Met Leu 40

Arg Ala Ala Leu Leu Lys Val Leu Glu Ala Arg Pro Glu Glu Pro Ile

Ala Phe Leu Ala His Tyr Phe Glu Asn Met Gly Leu Arg Ser Pro Val

55

50

65					70					75					80
Asn	Gly	Gly	Ala	Gly	Glu	Pro	Pro	Gly	Gln	Leu	Leu	Leu	Gln	Gln	Glr
				85					90					95	
Arg	Leu	Gly	Arg	Ala	Leu	Trp	His	Leu	Arg	Leu	Ala	His	His	Ser	Glr
			100					105					110		
Arg	Ala	Ala	Phe	Asn	Asn	Asn	Val	Ser	Val	Ala	Tyr	Glu	Cys	Leu	Ser
		115					120					125			
Ala	Gly	Gly	Arg	Arg	Lys	Arg	Pro	Gly	Leu	Asp	Gly	Arg	Thr	Tyr	Ser
	130					135					140				
Glu	Leu	Leu	Arg	Arg	lle	Cys	Arg	Asp	Gly	Gln	Ala	Pro	Glu	Glu	Val
145					150					155					160
Val	Ala	Pro	Leu	Leu	Arg	Lys	Val	Gln	Cys	Arg	Asp	His	Glu	Ala	Val
				165					170					175	
Pro	Leu	Ser	Val	Phe	Arg	Ala	Gly	Thr	Leu	Thr	Cys	Phe	Val	Leu	Leu
			180					185					190		
Glu	Phe		Ala	Arg	Ala	Gly		Leu	Phe	Gln	Leu	Leu	Glu	Asp	Ser
		195					200					205			
Ala		Ala	Val	Ala	Asp		Arg	Val	Gly	Gln		Val	Leu	Asp	Thr
	210					215					220				
	Glu	Gly	Ala	Leu		Ala	Ser	Asp	Ala		Ala	Pro	Ala	Arg	
225					230					235					240
Leu	Glu	Ala	Gly		Arg	Leu	Ala	Pro	Met	Thr	Arg	G]u	G] u		Leu
				245					250					255	
Glu	Arg	Ala		Ala	Leu	Phe	He		Lys	Val	Lys	Pro	Va1	G1 y	
			260					265					270		

<210> 4061

<211> 167

<212> PRT

<213> Homo sapiens

<400> 4061

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	20						25					30					
Val	Ser	Pro	Gly	Arg	Pro	Ala	Gly	Phe	Pro	Ala	Cys	Cys	Gly	Leu	Ser		
		35					40					45					
Val	Gly	Pro	Thr	Gly	Ala	Gly	Glu	Gly	Trp	Arg	Gly	Leu	Ala	Gly	Thr		
	50					55					60						
Arg	Gly	Ala	Glu	Pro	Ala	Leu	Ala	Lys	Pro	Ser	Ser	Glu	Glu	Arg	Arg		
65					70					75					80		
Leu	Trp	Leu	Arg	Ala	Leu	Arg	Ser	Gln	Va]	Ala	Gly	Ser	Ser	Arg	Gly		
				85					90					95			
Ser	Gly	Pro	Val	Pro	Ser	Ala	Asp	Pro	Gly	Ser	Arg	Ala	Leu	Val	Val		
			100					105					110				
Ser	Ala	Gly	Gly	Lys	Val	Thr	Arg	Ser	Gly	Arg	Arg	Arg	Arg	Val	Arg		
		115					120					125					
Gly	Ala	Glu	Arg	Gly	Lys	Glu	Arg	Val	Gln	Arg	Ala	Gly	Glu	Ser	Phe		
	130					135					140						
Arg	Lys	Ser	Gly	Arg	Gly	Arg	Tyr	Leu	Pro	Va1	Pro	Ser	Pro	Arg	Ala		
145					150					155					160		
Thr	Arg	Gln	He	Gly	Glu	Gly											
				165													
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<211	1> 12	22															
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<400)> 4(062								•							
Met	Phe	Phe	Cys	His	Gly	Phe	Ser	Trp	Ser	Leu	His	Leu	Gly	Pro	Leu		
l				5					10					15			
Thr	Ser	His	Asn	Thr	Asp	Gln	Arg	Gly	Glu	Thr	Pro	Ser	Leu	Leu	Lys		
			20					25					30				
Val	G1n	G1y	Ser	Ala	Glu	Cys	Ala	Gly	Ala	Ser	Leu	Glu	Ser	G]n	Leu		
		35					40					45					
Leu	Gly	Arg	Leu	Arg	Arg	Glu	Asn	Arg	Leu	Asn	Pro	Gly	Gly	Trp	Gly		

Cys Ser Glu Leu Arg Ser Cys His Cys Thr Pro Ala Trp Arg Gln Ser

Lys Thr Pro Phe Gln Thr Asn Lys Gln Met Asn Ile Ala Ile Ile Leu Lys Tyr Tyr Val Arg Ile Lys Tyr Val Ile Phe Arg Phe Leu Leu Met Tyr Asn Met His Thr Glu Ile His Pro Gln <210> 4063 <211> 142 <212> PRT <213> Homo sapiens <400> 4063 Met Pro Val Phe Ser Ala Ser Gln Val Ala Gly 11e Thr Gly Val His His His Ala Gly Leu Asn Phe Phe Val Phe Leu Val Glu Thr Gly Phe Leu Tyr Val Gly Gln Ala Asp Leu Glu Leu Pro Thr Ser Gly Asp Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly 11e Thr Gly Val Ser His Cys Thr Arg Leu Ser Leu Val Leu Arg His Leu Leu Asp Thr Pro Ser Leu Arg Ala Glu Arg Ser Pro Arg Pro Val Pro Arg Asp Lys Ala Gln Gly Arg Val Tyr Leu Gly Ser Arg Gly Gly Glu Gly Val Glu Lys Ala Glu Leu Glu Ser lle Thr Leu Pro Thr Asn His Gln Thr Ala Gly Thr Leu

Gln Pro Asn Ala Gly Arg Arg Thr Trp Arg Val Ser Leu Cys

<211> 160 <212> PRT <213> Homo sapiens <400> 4064 Met Phe Ala Pro Leu His Ser Gly Leu Asp Asp Arg Val Arg Leu Cys 10 Leu Lys Lys Lys lle lle lle Thr Asn Leu Ala Asn Gly Arg Leu 20 25 30 Phe Lys Leu Thr Cys Val Phe Leu Thr His Pro His His Phe Phe Thr 40 45 Arg Phe Leu Ala Phe Trp His Lys 11e Val Phe Phe Leu Cys Ser Asn 50 55 Pro Gly Ile Ser His Phe Pro Arg Glu Leu Trp Ile Leu Leu Val Glu 75 70 Ser Leu Asn Leu Gly Ile Leu Gln Asp Leu Asp Ala Arg Cys Ala His 90 85 Cys His Trp Gly Ala Thr Ala Leu His Ala Leu Ser Gly His Ser Gln 100 105 110 Gly Met Cys Val Cys Ser Phe Leu Cys Gly Met Lys Thr Met Cys Ser 120 125 Trp Cys Tyr Leu Met Thr Glu Val He Phe He Phe Ser Leu Ser Met 135 Phe Val Ala Leu Leu Ser Asp Gly Glu Lys Pro Gly Phe Tyr Tyr Leu

<210> 4065

145

<211> 409

<212> PRT

<213> Homo sapiens

<400> 4065

Met Glu Glu Ser Trp Glu Ala Ala Pro Gly Gly Gln Ala Gly Ala Glu

I 5 10 15

Leu Pro Met Glu Pro Val Gly Ser Leu Val Pro Thr Leu Glu Gln Pro

155

160

			20					25					30		
G1n	Val	Pro	Ala	Lys	Val	Arg	Gln	Pro	Glu	Gly	Pro	Glu	Ser	Ser	Pro
		35					40					45			
Ser	Pro	Ala	Gly	Ala	Val	Glu	Lys	Ala	Ala	Gly	Ala	Gly	Leu	Glu	Pro
	50					55					60				
Ser	Ser	Lys	Lys	Lys	Pro	Pro	Ser	Pro	Arg	Pro	Gly	Ser	Pro	Arg	Val
65					70					75					80
Pro	Pro	Leu	Ser	Leu	Gly	Tyr	Gly	Val	Cys	Pro	Glu	Pro	Pro	Ser	Pro
				85					90					95	
Gly	Pro	Ala	Leu	Val	Lys	Leu	Pro	Arg	Asn	Gly	Glu	Ala	Pro	Gly	Ala
			100					105					110		
Glu	Pro	Ala	Pro	Ser	Ala	Trp	Ala	Pro	Met	Glu	Leu	Gln	Val	Asp	Val
		115					120					125			
Arg	Val	Lys	Pro	Val	Gly	Ala	Ala	Gly	$G1\dot{y}$	Ser	Ser	Thr	Pro	Ser	Pro
	130					135					140				
Arg	Pro	Ser	Thr	Arg	Phe	Leu	Lys	Val	Pro	Val	Pro	Glu	Ser	Pro	Ala
145					150					155					160
Phe	Ser	Arg	His	Ala	Asp	Pro	Ala	His	G1n	Leu	Leu	Leu	Arg	Ala	Pro
				165					170					175	
Ser	Gln	G1y	Gly	Thr	Trp	Gly	Arg	Arg	Ser	Pro	Leu	Ala	Ala	Ala	Arg
			180					185					190		
Thr	Glu	Ser	G1y	Cys	Asp	Ala	Glu	Gly	Arg	Ala	Ser	Pro	Ala	G]u	G1y
		195					200					205			
Ser		Gly	Ser	Pro	Gly		Pro	Thr	Cys	Cys		Cys	Lys	Glu	Leu
	210					215					220				
	Leu	GIu	Lys	Glu		Ala	Ala	Leu	Leu		Arg	Ala	Gly	Leu	
225		0.1			230					235					240
GIy	Asp	Glu	Lys		Pro	Arg	Ala	Val		Leu	Thr	Gly	Leu	Pro	Met
Tr.	1		0	245		T.			250	F31			., ,	255	
lyr	val	Lys		Leu	lyr	lrp	Ala		Ala	Phe	Met	Ala		Leu	Leu
۸1.	W. 1	C	260	17 - 1	W . 1	T I	V 1	265		A 1	C		270	C I	4.7
ата	val		01 À	vai	val	116		val	Leu	ATa	ser		ATA	Gly	Ala
Λ	C	275	C 1 ··	C···-	D	D	280	Т	V . 1	1 -	С.	285	C1	11.2	Co
игg		OIN	OID	cys	110		uly	ırp	val	Leu		ULU	OLU	His	cys
Tvr	290 Tur	Dho	Son	Alc	Cliv	295	C1r	Λla	Т.,,,,	C1.	300	Car	C1:-	Λla	Pho

305					310					315					320
Cys	Ser	Ala	Tyr	His	Ala	Thr	Leu	Pro	Leu	Leu	Ser	His	Thr	Gln	Asp
				325					330					335	
Phe	Leu	Gly	Arg	Tyr	Pro	Val	Ser	Arg	His	Ser	Trp	Val	G1 y	Ala	Trp
			340					345					350		
Arg	Gly	Pro	Gln	Gly	Trp	His	Trp	He	Asp	Glu	Ala	Pro	Leu	Pro	Pro
		355					360					365			
Gln	Leu	Leu	Pro	Glu	Asp	Gly	Glu	Asp	Asn	Leu	Asp	11e	Asn	Cys	Gly
	370					375					380				
Ala	Leu	Glu	Glu	Gly	Thr	Leu	Val	Ala	Ala	Asn	Cys	Ser	Thr	Pro	Arg
385					390					395					400
Pro	Trp	Val	Cys	Ala	Lys	Gly	Thr	Gln							
				405											
)> 4(066													
<21															
	2> PI														
<213	3> Ho	omo s	sapie	ens											
< 211 N)> 4(Inh													
	Α.		,		,		C.1	C	6	,	61	D	., .		151
Met	Arg		Leu		Leu	Arg	Gln	Ser		Leu	G] u	Pro	Val		Phe
Met 1		Cys		5					10					15	
Met 1		Cys	Arg	5			Gln Glu	Phe	10				Val	15	
Met 1 Arg	Leu	Cys Pro	Arg 20	5 Val	Arg	Lys	Glu	Phe 25	10 Phe	Gln	Asp	Asp	Val 30	15 Phe	Pro
Met 1 Arg	Leu	Cys Pro Ala	Arg 20	5 Val	Arg	Lys	Glu Pro	Phe 25	10 Phe	Gln	Asp	Asp Glu	Val 30	15 Phe	Pro
Met l Arg Asp	Leu Thr	Cys Pro Ala 35	Arg 20 Val	5 Val lle	Arg Trp	Lys Glu	Glu	Phe 25 Val	10 Phe Leu	Gln Ser	Asp Ala	Asp Glu 45	Val 30 Ala	15 Phe Trp	Pro Leu

Met Ser Pro Val Ser Gln Ala Pro Arg Glu Ala Pro Ala Arg Arg Ala

Pro Ser Ser Ala Gln Tyr Leu Glu Glu Lys Ser Asp Gln Gln Lys Lys

Glu Glu Val Gly Met Gly Glu Ser Ser Cys Ala Glu Val Thr Glu Ser

Trp Leu His Leu Ala Thr Ala Pro

115 120

<210> 4067

<211> 507

<212> PRT

<213> Homo sapiens

<400> 4067

Met Ala Glu Leu Asp Gln Leu Pro Asp Glu Ser Ser Ser Ala Lys Ala I 5 10 15

Leu Val Ser Leu Lys Glu Gly Ser Leu Ser Asn Thr Trp Asn Glu Lys
20 25 30

Tyr Ser Ser Leu Gln Lys Thr Pro Val Trp Lys Gly Arg Asn Thr Ser 35 40 45

Ser Ala Val Glu Met Lys Phe Thr Ala Thr Met Ser Thr Pro Asp Lys 50 55 60

Lys Ala Ser Gln Lys Ile Gly Phe Arg Leu Arg Asn Leu Leu Lys Leu 65 70 75 80

Pro Lys Ala His Lys Trp Cys Ile Tyr Glu Trp Phe Tyr Ser Asn Ile 85 90 95

Asp Lys Pro Leu Phe Glu Gly Asp Asn Asp Phe Cys Val Cys Leu Lys
100 105 110

Glu Ser Phe Pro Asn Leu Lys Thr Arg Lys Leu Thr Arg Val Glu Trp 115 120 125

Gly Lys lle Arg Arg Leu Met Gly Lys Pro Arg Arg Cys Ser Ser Ala 130 135 140

Phe Phe Glu Glu Glu Arg Ser Ala Leu Lys Gln Lys Arg Gln Lys Ile

145 150 155 160

Arg Leu Leu Gln Gln Arg Lys Val Ala Asp Val Ser Gln Phe Lys Asp 165 170 175

Leu Pro Asp Glu Ile Pro Leu Pro Leu Val Ile Gly Thr Lys Val Thr 180 185 190

Ala Arg Leu Arg Gly Val His Asp Gly Leu Phe Thr Gly Gln Ile Asp

		195					200					205			
Ala	Val	Asp	Thr	Leu	Asn	Ala	Thr	Tyr	Arg	Val	Thr	Phe	Asp	Arg	Thr
	210					215					220				
Gly	Leu	Gly	Thr	His	Thr	lle	Pro	Asp	Tyr	Glu	Val	Leu	Ser	Asn	Glu
225					230					235					240
Pro	His	Glu	Thr	Met	Pro	He	Ala	Ala	Phe	Gly	Gln	Lys	Gln	Arg	Pro
				245					250					255	
Ser	Arg	Phe	Phe	Met	Thr	Pro	Pro	Arg	Leu	His	Tyr	Thr	Pro	Pro	Leu
			260					265					270		
Gln	Ser	Pro	He	He	Asp	Asn	Asp	Pro	Leu	Leu	Gly	Gln	Ser	Pro	Trp
		275					280					285			
Arg	Ser	Lys	11e	Ser	G1 y	Ser	Asp	Thr	Glu	Thr	Leu	Gly	Gly	Phe	Pro
	290					295					300				
Val	Glu	Phe	Leu	He	Gln	Val	Thr	Arg	Leu	Ser	Lys	lle	Leu	Met	He
305					310					315					320
Lys	Lys	Glu	His	He	Lys	Lys	Leu	Arg	Glu	Met	Asn	Thr	Glu	Ala	G] u
				325					330					335	
Lys	Leu	Lys	Ser	Tyr	Ser	Met	Pro	lle	Ser	lle	Glu	Phe	Gln	Arg	Arg
			340					345					350		
Tyr	Ala	Thr	Ile	Val	Leu	Glu	Leu	Glu	Gln	Leu	Asn	Lys	Asp	Leu	Asn
		355					360					365			
Lys	Val	Leu	His	Lys	Val	Gln	Gln	Tyr	Cys	Tyr	Glu	Leu	Ala	Pro	Asp
	370					375					380				
Gln	Gly	Leu	Gln	Pro	Ala	Asp	Gln	Pro	Thr	Asp	Met	Arg	Arg	Arg	Cys
385					390					395					400
Glu	Glu	Glu	Ala	Gln	Glu	He	Val	Arg	His	Ala	Asn	Ser	Ser	Thr	Gly
				405					410					415	
Gln	Pro	Cys	Val	Glu	Asn	Glu	Asn	Leu	Thr	Asp	Leu	He	Ser	Arg	Leu
			420					425					430		
Thr	Ala	11e	Leu	Leu	Gln	He	Lys	Cys	Leu	Ala	Glu	Gly	Gly	Asp	Leu
		435					440					445			
Asn	Ser	Phe	Glu	Phe	Lys	Ser	Leu	Thr	Asp	Ser	Leu	Asn	Asp	He	Lys
	450					455					460				
Ser	Thr	He	Asp	Ala	Ser	Asn	He	Ser	Cys	Phe	Gln	Asn	Asn	Val	Glu
465					470					475					480
He	His	Val	Ala	His	Tle	Gln	Ser	Gly	Leu	Ser	Gln	Met	Gly	Asn	Leu

His Ala Phe Ala Ala Asn Asn Thr Asn Arg Asp
500 505

<210> 4068 <211> 601

<212> PRT

<213> Homo sapiens

<400> 4068

Met Ala Ala Leu Thr Pro Arg Lys Arg Lys Gln Asp Ser Leu Lys Cys
1 5 10 15

Asp Ser Leu Leu His Phe Thr Glu Asn Leu Phe Pro Ser Pro Asn Lys
20 25 30

Lys His Cys Phe Tyr Gln Asn Ser Asp Lys Asn Glu Glu Asn Leu His
35 40 45

Cys Ser Gln Gln Glu His Phe Val Leu Ser Ala Leu Lys Thr Thr Glu 50 55 60

Ile Asn Arg Leu Pro Ser Ala Asn Gln Gly Ser Pro Phe Lys Ser Ala65707580

Leu Ser Thr Val Ser Phe Tyr Asn Gln Asn Lys Trp Tyr Leu Asn Pro 85 90 95

Leu Glu Arg Lys Leu Ile Lys Glu Ser Arg Ser Thr Cys Leu Lys Thr 100 105 110

Asn Asp Glu Asp Lys Ser Phe Pro 11e Val Thr Glu Lys Met Gln Gly
115 120 125

Lys Pro Val Cys Ser Lys Lys Asn Asn Lys Lys Pro Gln Lys Ser Leu 130 135 140

Thr Ala Lys Tyr Gln Pro Lys Tyr Arg His lle Lys Pro Val Ser Arg

145 150 155 160 Asn Ser Arg Asn Ser Lys Gln Asn Arg Val lle Tyr Lys Pro 11e Val

165 170 175

Glu Lys Glu Asn Asn Cys His Ser Ala Glu Asn Asn Ser Asn Ala Pro 180 185 190

Arg Val Leu Ser Gln Lys Ile Lys Pro Gln Val Thr Leu Gln Gly Gly

		195					200					205			
Ala	Ala	Phe	Phe	Val	Arg	Lys	Lys	Ser	Ser	Leu	Arg	Lys	Ser	Ser	Leu
	210					215					220				
Glu	Asn	Glu	Pro	Ser	Leu	Gly	Arg	Thr	Gln	Lys	Ser	Lys	Ser	Glu	Val
225					230					235					240
He	Glu	Asp	Ser	Asp	Val	Glu	Thr	Val	Ser	Glu	Lys	Lys	Thr	Phe	Ala
				245					250					255	
Thr	Arg	Gln	Val	Pro	Lys	Cys	Leu	Val	Leu	Glu	Glu	Lys	Leu	Lys	lle
			260					265					270		
Gly	Leu	Leu	Ser	Ala	Ser	Ser	Lys	Asn	Lys	Glu	Lys	Leu	He	Lys	Asp
		275					280					285			
Ser	Ser	Asp	Asp	Arg	Val	Ser	Ser	Lys	Glu	His	Lys	Va]	Asp	Lys	Asn
	290					295					300				
Glu	Ala	Phe	Ser	Ser	Glu	Asp	Ser	Leu	Gly	Glu	Asn	Lys	Thr	He	Ser
305					310					315					320
Pro	Lys	Ser	Thr	Val	Tyr	Pro	lle	Phe	Ser	Ala	Ser	Ser	Val	Asn	Ser
				325					330					335	
Lys	Arg	Ser	Leu	Gly	Glu	Glu	Gln	Phe	Ser	Val	G1 y	Ser	Va]	Asn	Phe
			340					345					350		
Met	Lys	Gln	Thr	Asn	He	Gln	Lys	Asn	Thr	Asn	Thr	Arg	Asp	Thr	Ser
		355					360					365			
Lys	Lys	Thr	Lys	Asp	Gln	Leu	Пe	He	Asp	Ala	Gly	Gln	Lys	His	Phe
	370					375					380				
	Ala	Thr	Va]	Cys		Ser	Cys	Gly	Met	He	Tyr	Thr	Ala	Ser	Asn
385					390					395					400
Pro	Glu	Asp	Glu	Met	Gln	His	Val	Gln	His	His	His	Arg	Phe	Leu	Glu
			_	405					410					415	
G] y	He	Lys		Val	G1 y	Trp	Lys		Glu	Arg	Val	Val		Glu	Phe
_			420					425	_			_	430		
Trp	Asp		Lys	He	Val	Leu		Leu	Pro	His	Asp		Ser	Phe	Ala
3.2		435		٥.			440					445			
He	Lys	Lys	Val	Glu	Asp		G1n	GIu	Leu	Val		Asn	GIu	Leu	Gly
DI	450	C.1	,, ,	., .		455					460	_			
	Gln	GIn	Val	Val		Lys	Cys	Pro	Asn		Пе	Lys	Thr	Phe	
465	11	C		6.3	470			., .		475		• •		0.1	480
Phe	He	Ser	Asn	Glu	VC	Arg	Val	Val	G1v	Cve	Leu	116	Ala	Glu	Pro

lle Lys Gln Ala Phe Arg Val Leu Ser Glu Pro Ile Gly Pro Glu Ser Pro Ser Ser Thr Glu Cys Pro Arg Ala Trp Gln Cys Ser Asp Val Pro Glu Pro Ala Val Cys Gly Ile Ser Arg Ile Trp Val Phe Arg Leu Lys Arg Arg Lys Arg Ile Ala Arg Arg Leu Val Asp Thr Leu Arg Asn Cys Phe Met Phe Gly Cys Phe Leu Ser Thr Asp Glu Ile Ala Phe Ser Asp Pro Thr Pro Asp Gly Lys Leu Phe Ala Thr Lys Tyr Cys Asn Thr Pro Asn Phe Leu Val Tyr Asn Phe Asn Ser

<210> 4069

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4069

Met Gln Leu Arg Phe Arg Gly His Ser lle Asn His Ser Leu Tyr Met His Asn Ser Ser Gly Gly Ser Arg Val lle Ile Ala Ser Arg Ser Gln lle Ser Tyr Phe Phe lle Asn lle Glu Thr Lys Leu Trp Ser Gln Ile Val Asn Glu Arg Lys Ile His Tyr Ile Leu Glu Lys Glu Ala Asn Asp Val Asn Lys Asp Glu Glu Val Glu Asp Gly His Arg Asn Cys Gln Arg Arg Arg Trp Arg Lys Met Arg Pro Arg Gly Glu Thr Glu Ser Thr His Phe Ser Val Gly Phe Pro Ser Met Ser Pro Lys Ser Lys Gly Gln Pro

Gly Ala Ser Pro Gln IIe IIe Leu Ala Ala Asp Ser Gln <210> 4070 <211> 179 <212> PRT <213> Homo sapiens <400> 4070 Met Gly Pro Ala Ala Ala Pro Gly His Leu Ser Ser Gly Gly Cys Cys Val Leu Pro Leu Pro Ser Val Leu Pro Pro Ser Ile Ser Ala Val Pro Gly Leu Ala Leu Leu Pro Gly Arg Trp Thr Leu Pro Ser Gln Trp Thr Arg Arg Leu Ala Ala Ser Ala Pro Pro Asp Arg Ser Pro Tyr Leu Ser Pro Arg Leu Gln Ser Pro Val Pro Thr Ala Ala His Val Ala Ser Phe Gln Ala Ala Ala Arg Ala Ser Gly Thr Ser Gly Ala Ser Thr Val Ala Cys Gly His Gly Pro Arg Ser Phe Ser Pro Leu Ser Ser Ser Ser Arg Ala Gly Pro Arg Val Ser Pro Gln Pro Asp Trp Leu Cys Leu Gln Met Met Leu Val Thr Gln Leu Phe Val Ser Arg Asn Ala Gly Gly Ile Ala Val Pro Phe Ser Gly Ser Ala Ala Phe Ser Leu Ala Val 11e Pro Pro

Gly Glu Ala His Leu Gly Arg Phe Trp Ala Thr Ala Val Trp Leu His

Ser Gly Gln

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<210> 4071
<211> 157
<212> PRT
<213> Homo sapiens
<400> 4071
Met Gly Gly Ala Trp Ser Glu Ala Gln Glu Ala Asp Gly Gly Gly His
 1
                  5
                                     10
                                                          15
Gln Gly Gln Glu Ala Ser Asn Pro Pro Leu Arg Ala Thr Pro Ser Leu
                                 25
Pro Gly Gly Gln Cys Leu Tyr Gly Leu Lys Ala Gly Pro Trp Gly Thr
                             40
                                                 45
Thr Ala Asp Phe Cys Phe Asn Trp Lys Gln Thr Gly He Asn Phe Pro
     50
                         55
Tyr Lys Tyr Ser Ala Asn Asn Leu Glu Val Tyr Lys Gly Lys Ser Glu
                     70
                                         75
Gly Ser Thr Gln Pro Ser Cys Pro Thr Phe Thr Leu Thr Gly Asn Gln
                 85
                                     90
Leu Leu Val Val Leu Val Gly Pro Ser Arg His Phe Met Cys Ala Phe
                                105
                                                    110
Thr Asn Ile Met His Ser Tyr Val Phe Leu Lys Gly Lys Gln Arg Pro
                           120
                                                125
Gly Ala Val Ala Asp Ala Cys Asn Pro Ser Thr Leu Gly Gly Arg Gly
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<210> 4072

145

130

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4072

Met Ser Arg Trp Leu Trp Pro Trp Ser Asn Cys Val Lys Glu Arg Val

135

Gly Arg 11e Thr Arg Ser Gly Asp Gly Asp His Pro Gly

150

140

155

Cys Arg Tyr Leu Leu His His Tyr Leu Gly His Phe Phe Gln Glu His Leu Ser Leu Asp Gln Leu Ser Leu Asp Leu Tyr Lys Gly Ser Val Ala Leu Arg Asp 11e His Leu Glu 11e Trp Val Arg Ser Gln Ala Arg Val Gln Glu Val Cys Glu Arg Gly Ala Gly Val Asn Gly Val Thr Ala Gly Ala Gly Gly Arg Leu Arg Gly Leu His Arg Gly Gly Arg Ala Leu Gly Cys Ser Ala His Arg Pro Leu His Ser Ala Arg Val Arg Pro Pro Ala His Leu Ala Ala Pro Pro Gly Ser Arg

<210> 4073

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4073

Met Arg Ser Leu Leu Ile Leu Ser Trp Asp Ser Trp Ser Ile Ala Phe Leu Ala Gly Asn Leu Cys Gly Gln Trp His Leu Cys Pro Ser Phe Ala Trp Ala Ser Arg Ser Arg His Arg Cys Leu Leu Pro Ala Arg Leu Gln Leu Asp Gln Val Tyr Cys Lys Gln Ala Ala Ser Thr Ala Gly Thr Gly Glu His Gly Gly Gly Gln Lys Leu Gly Asp Thr Arg Asn Cys Arg Ala Pro Lys Arg Val Ser Gln Ala Cys lle Arg Asn Leu Leu Gly Leu Gly

Ser Leu Lys Gly His Ser Ser Ser Leu Leu Leu Ser Ser Leu Leu Leu

Val Thr Arg Asn Val Ala Ser Lys Gly Cys Val Ser Ala Leu Phe Val Leu <210> 4074 <211> 226 <212> PRT <213> Homo sapiens <400> 4074 Met Ala Asp Leu Leu Pro Phe Ala Val Pro Thr Lys Ser Asp Lys Thr Leu Leu Val Trp Glu Leu Ser Ser Gly Pro Thr Ala Asp Ala Leu Tyr Arg Gln Gly Leu Ala Val Leu Leu Met Leu Val Leu Asn Ser Trp Pro Gln Ala Ile Leu Pro Ser Trp Pro Pro Arg Glu Gln Asp Tyr Arg Leu Phe Leu Leu Glu Val Val Glu Glu Glu Glu Ser Thr Ser Asp Glu Gln He Ala Gly Gly Cys Ser His Ser His Val Ser Ala Lys Lys Ser Glu Phe Ser Ser His Gln Asn Gln Gly Lys Asp Asn Ala Ala Val Met Val Gln Ser Cys Leu Glu Gly Glu Thr Ala Leu Val Phe Pro Ala Leu Glu Ile Asn Val Val Pro Leu Asn Ilis Lys Asp Cys Pro Trp Gly Glu Glu Gln Arg Pro Gly Trp Thr Gly Asp His Ala Arg Ser Arg Ala Leu Gln Lys Cys Gln Ser Glu Gly Ser Gly His Arg Leu Gly Pro Phe Gly

Met Met Gly Lys Phe Ala Lys Val Arg Arg Gln Glu Leu Gly Ser Ser

Leu Lys Gln Arg Gly Phe Gln Ala Ala Glu Glu Pro Glu Asp Pro Ala Ser Ala Pro Asp Thr Val Leu Asp His Leu Phe Pro Phe Pro Ser Cys Leu Phe <210> 4075 <211> 362 <212> PRT <213> Homo sapiens <400> 4075 Met Lys Pro Thr Glu Gly Trp Lys Trp Thr Leu Asn Ser Arg Lys Ala Arg Glu Trp Thr Pro Arg Asp Ile Glu Ala Gln Thr Gln Lys Pro Glu Pro Pro Glu Ser Ala Glu Lys Leu Leu Glu Ser Pro Gly Val Glu Ala Gly Glu Gly Glu Ala Glu Lys Glu Glu Ala Gly Ala Gln Gly Arg Pro Leu Arg Ala Leu Gln Asn Cys Cys Ser Val Pro Ser Pro Leu Pro Pro Glu Asp Ala Gly Thr Gly Gly Leu Arg Gln Gln Glu Glu Glu Ala Val Glu Leu Gln Pro Pro Pro Pro Ala Pro Leu Ser Pro Pro Pro Pro Ala Pro Thr Ala Pro Gln Pro Pro Gly Asp Pro Leu Met Ser Arg Leu Phe Tyr Gly Val Lys Ala Gly Pro Gly Val Gly Ala Pro Arg Arg Ser Gly His Thr Phe Thr Val Asn Pro Arg Arg Ser Val Pro Pro Ala Thr Pro

Ala Thr Pro Thr Ser Pro Ala Thr Val Asp Ala Ala Val Pro Gly Ala

				165					170					175	
Gly	Lys	Lys	Arg	Tyr	Pro	Thr	Ala	$Gl\mathbf{u}$	Glu	He	Leu	Val	Leu	G1 y	Gly
			180					185					190		
Tyr	Leu	Arg	Leu	Ser	Arg	Ser	Cys	Leu	Ala	Lys	Gly	Ser	Pro	Glu	Arg
		195					200					205			
His	His	Lys	Gln	Leu	Lys	Πe	Ser	Phe	Ser	Glu	Thr	Ala	Leu	Glu	Thr
	210					215					220				
Thr	Tyr	Gln	Tyr	Pro	Ser	G1u	Ser	Ser	Val	Leu	G] u	Arg	Arg	Arg	Ala
225					230					235					240
Lys	Leu	Gly	Leu	Ser	Pro	Gly	Glu	Pro	Ser	Pro	Val	Leu	Gly	Thr	Val
				245					250					255	
Glu	Ala	Gly	Pro	Pro	Asp	Pro	Asp	Glu	Ser	Ala	Val	Leu	Leu	Glu	Ala
			260					265					270		
He	Gly	Pro	Val	His	Gln	Asn	Arg	Phe	He	Arg	Gln	Glu	Arg	Gln	Gln
		275					280					285			
Gln	Gln	Gln	Gln	Gln	Gln	Arg	Ser	Glu	Glu	Leu	Leu	Ala	Glu	Arg	Lys
	290					295					300				
Pro	Gly	Pro	Leu	Glu	Ala	Arg	Glu	Arg	Arg	Pro	Ser	Pro	Gly	Glu	Met
305					310					315					320
Arg	Asp	Gln	Ser	Pro	Lys	Gly	Arg	G]u	Ser	Arg	Glu	Glu	Asp	Glu	G1 u
				325					330					335	
Glu	Leu	Leu	Leu	Leu	Gln	Pro	Glu	Leu	Gln	Gly	Gly	Leu	Arg	Thr	Lys
			340					345					350		
Ala	Leu	He	Val	Asp	Glu	Ser	Cys	Arg	Arg						
		355					360								

<210> 4076

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4076

Met Pro Leu Pro He Asn Thr He Gly Cys Leu Leu Ser Tyr Pro Lys

1 5 10 15

Pro Phe Asp Thr Ala His Trp Lys Met Glu Phe Met Leu Leu His Gly

Leu Gly Phe Ala Thr Cys Leu Thr Phe Thr Val Ser Met Leu Pro Asn Ser Gly Ala Gly Ala Pro Ala Ser Leu His Pro Pro Pro Phe Cys Ile Arg Gln Gly Ile Ser Ser Pro Thr Pro Thr Ala Ser Leu Pro Lys Cys Leu His Cys Gln Leu Lys Leu Pro Ala Ala His Phe Asn Pro Ala Leu Thr Gly Thr Trp Lys Ser Ser His His Thr Ser Ile Phe Pro Ser Thr Ser Leu Phe <210> 4077 <211> 515 <212> PRT <213> Homo sapiens <400> 4077 Met Val Leu Ser Gln Glu Glu Pro Asp Ser Ala Arg Gly Thr Ser Glu Ala Gln Pro Leu Gly Pro Ala Pro Thr Gly Ala Ala Pro Pro Pro Gly Pro Gly Pro Ser Asp Ser Pro Glu Ala Ala Val Glu Lys Val Glu Val Glu Leu Ala Gly Pro Ala Thr Ala Glu Pro His Glu Pro Pro Glu Pro Pro Glu Gly Gly Trp Gly Trp Leu Val Met Leu Ala Ala Met Trp Cys Asn Gly Ser Val Phe Gly Ile Gln Asn Ala Cys Gly Val Leu Phe Val Ser Met Leu Glu Thr Phe Gly Ser Lys Asp Asp Asp Lys Met Val Phe

Lys Thr Ala Trp Val Gly Ser Leu Ser Met Gly Met 11e Phe Phe Cys

		115					120					125			
Cys	Pro	He	Va]	Ser	Val	Phe	Thr	Asp	Leu	Phe	Gly	Cys	Arg	Lys	Thr
	130					135					140				
Ala	Val	Va]	Gly	Ala	Ala	Val	Gly	Phe	Val	Gly	Leu	Met	Ser	Ser	Ser
145					150					155					160
Phe	Val	Ser	Ser	lle	Glu	Pro	Leu	Tyr	Leu	Thr	Tyr	Gly	Пе	11e	Phe
				165					170					175	
Ala	Cys	Gly	Cys	Ser	Phe	Ala	Tyr	Gln	Pro	Ser	Leu	Val	lle	Leu	Gly
			180					185					190		
His	Tyr	Phe	Lys	Lys	Arg	Leu	Gly	Leu	Val	Asn	G1 y	He	Val	Thr	Ala
		195					200					205			
Gly	Ser	Ser	Val	Phe	Thr	He	Leu	Leu	Pro	Leu	Leu	Leu	Arg	Val	Leu
	210					215					220				
Пе	Asp	Ser	Val	Gly	Leu	Phe	Tyr	Thr	Leu	Arg	Val	Leu	Cys	lle	Phe
225					230					235					240
Met	Phe	Val	Leu	Phe	Leu	Ala	Gly	Phe	Thr	Tyr	Arg	Pro	Leu	Ala	Thr
				245					250					255	
Ser	Thr	Lys	Asp	Lys	Glu	Ser	Gly	Gly	Ser	Gly	Ser	Ser	Leu	Phe	Ser
			260					265					270		
Arg	Lys	Lys	Phe	Ser	Pro	Pro	Lys	Lys	He	Phe	Asn	Phe	Ala	He	Phe
		275					280					285			
Lys	Va]	Thr	Ala	Tyr	Ala	Val	Trp	Ala	Val	Gly	lle	Pro	Leu	Ala	Leu
	290					295					300				
Phe	Gly	Tyr	Phe	Val	Pro	Tyr	Val	His	Leu	Met	Lys	His	Val	Asn	Glu
305					310					315					320
Arg	Phe	Gln	Asp		Lys	Asn	Lys	Glu		Val	Leu	Met	Cys		Gly
		_		325					330					335	
Val	Thr	Ser	Gly	Val	Gly	Arg	Leu		Phe	Gly	Arg	He		Asp	Tyr
			340				_	345					350		
Val	Pro		Val	Lys	Lys	Val		Leu	GIn	Val	Leu		Phe	Phe	Phe
2.1	C.1	355		C			360					365			
He		Leu	Met	Ser	Met		He	Pro	Leu	Cys		He	Phe	GI v	Ala
	370	. 1	1	6		375		0.1			380		.~		
	116	Λ1а	Val	Cys		11e	Met	G1 y	Leu		Asp	Gly	Cys	Phe	
385	7.1	11 -	A 7	n.	390	A 7	131	67		395	63	• 7	6.3		400
ser	116	MG f	Ala	rro	116	Ala	rne	GIU	Leu	val	01y	Ala	GIn	Asp	va1

				405					410					415	
Ser	Gln	Ala	He	Gly	Phe	Leu	Leu	Gly	Phe	Met	Ser	He	Pro	Met	Thi
			420					425					430		
Val	Gly	Pro	Pro	He	Ala	Gly	Leu	Leu	Arg	Asp	Lys	Leu	Gly	Ser	Tyr
		435					440					445			
Asp	Val	Ala	Phe	Tyr	Leu	Ala	Gly	Val	Pro	Pro	Leu	11e	Gly	Gly	Ala
	450					455					460				
Val	Leu	Cys	Phe	He	Pro	Trp	He	His	Ser	Lys	Lys	Gln	Arg	Glu	116
465					470					475					480
Ser	Lys	Thr	Thr	Gly	Lys	Glu	Lys	Met	Glu	Lys	Met	Leu	Glu	Asn	Glr
				485					490					495	
Asn	Ser	Leu	Leu	Ser	Ser	Ser	Ser	Gly	Met	Phe	Lys	Lys	Glu	Ser	Asp
			500					505					510		
Ser	Пе	lle													
		515													
	0> 40														
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	2> PI														
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	Gly		Glv	G1 v	Val	G1 v	Gln	Met	Glu	Gln	Gln	Pro	G1v	Glu	Aro
1	01,	,	01,	5	,	01;	0111	.nc t	10	0111	OTH	110	019	15	5
	Лsp	l.eu	Gln		Thr	GIn	Gln	Ala		Ala	Val	Ser	Ser		Aro
		.50 4	20			V	0111	25		,,,,		501	30	31C C	s
Asn	Arg	Arg		He	His	G1 v	Thr			Arg	Lvs	Glu		Glu	Glu
	Ü	35	•			-	40		•	J		45			
Lys	Ser	Tyr	Leu	Leu	Gly	Pro	Tyr	Pro	Gly	Lys	Phe	Pro	Thr	Leu	Va]
	50					55					60				
Leu	Phe	Thr	Gly	Cys	Cys	Pro	Glu	Arg	Gln	He	Leu	Ser	Ser	Pro	Ser
65					70					75					80
His	Glu	Arg	Gly	Asn	Gln	Gly	Cys	Lys	Gln	Glu	Ser	Asp	Ser	Ala	Lys
				85					90					95	

Val Thr Gln Leu Glu Ser Gly Arg Asp Gly Thr Gln His Asp Ile Ser

Leu Gln Ser Trp Gln Leu Leu Arg Ala Leu Pro Leu Leu Asn Arg Asp Leu Pro Gly Met Thr Arg Arg Pro Ser Gly Phe Ser Gly Leu Val Leu Arg Thr Phe 11e Arg Phe Phe Ser Lys Tyr Leu Leu Ser Ala Thr Val Cys Gln Ala Leu Phe <210> 4079 <211> 272 <212> PRT <213> Homo sapiens <400> 4079 Met Gln Ser Asn Met Thr Asn Thr Val Val Arg Thr Thr Leu Arg Asn Asp Leu Ser Gln Glu Gly Ile Ile His His Leu Lys Ile Leu Ser Pro Ile Tyr Cys Ala Phe Gln Asn Asp Leu Leu Thr Ser Ser Gly Phe Thr Leu Glu Trp Gly Val Tyr Thr Ile Ile Glu Asp Leu His Gly Ala Gly Asn Phe Val Thr Glu Met Gln Leu Phe Ile Gly Asp Ser Pro Ile Pro Gln Asn Tyr Ser Val Ser Ala Ser Asp Asp Val Arg Ile Glu Val Gly Leu Tyr Arg Gln Lys Ser Asn Leu Lys Val Val Leu Thr Glu Cys Trp Ala Thr Pro Ser Ser Asn Ala Arg Asp Pro 11e Thr Phe Ser Phe 11e Asn Asn Ser Cys Pro Val Pro Asn Thr Tyr Thr Asn Val lle Glu Asn Gly Asn Ser Asn Lys Ala Gln Phe Lys Leu Arg 11e Phe Ser Phe I1e

145 150 155 160 Asn Asn Ser lle Val Tyr Leu His Cys Lys Leu Arg Val Cys Met Glu 165 170 Ser Pro Gly Ala Thr Cys Lys Ile Asn Cys Asn Asn Phe Arg Leu Leu 180 185 190 Gln Asn Ser Glu Thr Ser Ala Thr His Gln Met Ser Trp Gly Pro Leu 200 lle Arg Ser Glu Gly Glu Pro Pro His Ala Glu Ala Gly Leu Gly Ala 215 220 Gly Tyr Val Val Leu Ile Val Val Ala Ile Phe Val Leu Val Ala Gly 230 235 240 Thr Ala Thr Leu Leu lle Val Arg Tyr Gln Arg Met Asn Gly Arg Tyr 245 250 Asn Phe Lys Ile Gln Ser Asn Asn Phe Ser Tyr Gln Val Phe Tyr Glu 260 270 265

<210> 4080

⟨211⟩ 133

<212> PRT

<213> Homo sapiens

<400> 4080

Met Ala Gly Ala Gly Val Gly Gly Trp Val Pro Gly Ala Trp Leu Gln

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Gly Cys Pro Ser Val Leu Arg Pro Leu Val Ser Leu Pro Ser Ser Ser

0 25 30

35 40 45

Phe lle Val Leu Leu Leu Arg Glu Val Lys Leu His His Gln Asp Trp 50 55 60

Pro Thr Leu Glu Phe Leu Leu Phe Leu Ile Leu Val Met Phe Leu Gly

lle Ala Phe Ala Phe Gln Leu Phe Ile His Pro Leu Ala Trp Thr Arg
65 70 75 80

Thr Arg Ala Gly Ile Phe Gly Cys Phe Arg Phe Ala Arg Cys Ser Ile
85 90 95

Phe Ala Gln Val Leu Arg Leu Glu Met His Phe Lys Leu Ser Arg Leu

Ala Gly Lys Met Gln Asp Ala Leu Trp Leu His Lys Cys Cys Thr Ser Gly Val Gly Ala Gly <210> 4081 <211> 566 <212> PRT <213> Homo sapiens <400> 4081 Met Val Arg Glu Lys Tyr lle Arg Pro Leu Thr Thr Glu Glu Trp Val Glu Lys Met Met Asp Ala Asp Pro Glu Phe Pro Pro Asp Phe Ala Glu Ala Phe Glu Ser Gln Leu Ser Leu Ser Asp Ser Pro Ser Leu Cys Arg Pro Val Tyr Ser Lys Lys Gly Leu Glu His Lys Ala Asp Leu Gln Gln His Leu Phe Pro Val Pro Pro Gly His Leu Glu Cys Thr Pro Glu Ser Leu Trp Lys Glu Leu Ser Leu Gln His Glu Gly Leu Lys Glu Leu Ile His Lys Gln Met Arg Pro Phe Ser Gln Gly 11e Val Ile Leu Ser Arg Ser Trp Ala Val Asp Leu Asn Leu Gln Glu Lys Pro Gly Val lle Cys Asp Ala Leu Leu lle Ala Gln Asn Ser Thr Pro lle Leu Tyr Thr lle Leu Arg Glu Gln Asp Ala Glu Gly Gln Asp Tyr Cys Thr Arg Thr Ala Phe Thr Leu Lys Gln Lys Leu Val Asn Met Gly Gly Tyr Thr Gly Lys

Val Cys Val Arg Ala Lys Val Leu Cys Leu Ser Pro Glu Ser Ser Thr

Glu Ala Clu Ala Val Val Pro Met Asp Tyr Pro Ala Ser Tyr Ser Leu Ala Gly Thr Glu His Met Glu Ala Leu Glu Ser Leu Glu Ser Leu Glu Val 220 Leu Glu Val 220 Leu Val Val 220 Leu Val 220 Leu Val Val 220 Leu Val
Ser Leu Ala Gly Thr Gln His Met Glu Ala Leu Leu Gln Ser Leu Glu Ala Leu Gln Ser Leu Ceu Leu Gln Leu Gln Leu Cey 225
Ser Leu Ala Gly Thr Gln His Met Glu Ala Leu Leu Gln Ser Leu Glu Ala Leu Gln Ser Leu Ceu Leu Gln Leu Gln Leu Cey 225
11
11e Val Leu Leu Gly Phe Arg Ser Leu Leu Ser Leu Gly Cys 225
225
Glu Val Leu Asn Leu Leu Thr Ala Glu Glu Tyr Glu Phe Phe Arg Arg Arg Arg 245
245 1 250 1 1 255 255 Ser Leu Arg Lys Asn Arg Glu Leu Phe Val His Gly Leu Pro Gly Ser Gly Lys Thr His Met Ala Met Lys His Glu Lys Asn Asn Asn Val Phe His Cys Glu Ala His Arg Hee Leu Tyr Val Cys Glu Asn Glu Pro Phe His Cys Glu Ala His Arg Hee Leu Tyr Val Cys Glu Asn Glu Pro Leu Arg Asn His Arg His Lys His His Glu Asn His
Ser Leu Arg Lys Asn Arg Glu Leu Phe Val His Gly Leu Pro Gly Ser Gly Lys Thr His Met Ala Met Lys He Glu Lys He Arg Arg He Glu Lys He Arg He Arg He Glu Lys He Arg Arg He Arg Arg He Arg Arg Arg He Arg
State Stat
Gly Lys Thr Hie Met Ala Met Lys Hie Glu Lys Hie Arg Ash Value Phe His Cys Glu Ala His Arg Hie Tyr Val Cys Glu Ash Gln Pro Leu Arg Ash Phe 11e Ser Val Arg Ash Hie Glu Ash Arg
Phe His Cys Glu Ala His Arg Ile Leu Tyr Val Cys Glu Asn Gln Pro 290 Cys Arg Asn Phe Arg
Phe His Cys Glu Ala His Arg Ile Leu Tyr Val Cys Glu Asn Phe 290
1 1 290 295 295 300 300 31
Leu Arg Asn Phe Ile Ser Val Arg Asn Ile Cys Arg Ala Glu Thr Arg 305 316 310 315 315 326 326 Lys Thr Phe Leu Arg Glu Arg Glu Bys
315
Asp Glu Ala Gln Asp Phe Arg Thr Glu Asp Gly Asp Trp Tyr Arg Lys Ala Lys Thr He Thr Gln Arg Glu Lys Asp Gly Asp Trp Tyr Arg Lys Ala Lys Thr He Tyr He Glu Lys Asp Cys Pro Gly Val Leu Tyr He Lys He
Asp Glu Ala Gln Asn Phe Arg Thr Glu Asp Gly Asp Trp Tyr Arg Lys 340
Ala Lys Thr Ile Thr Gln Arg Glu Lys Asp Cys Pro Gly Val Leu Trp 11e Phe Leu Asp Tyr Phe Gln Thr Gln Thr Gln Thr Glu Lys Asp Cys Pro Gly Val Leu Trp 11e Phe Phe Leu Asp Tyr Phe Gln Thr Ser His Leu Gly His Ser Gly Leu 370 375 375 380 Thr Arg Val Val
Ala Lys Thr He Thr Gln Arg Glu Lys Asp Cys Pro Gly Val Leu Try 355
$\begin{array}{cccccccccccccccccccccccccccccccccccc$
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370 375 380 Pro Pro Leu Ser Ala Gln Tyr Pro Arg Glu Glu Leu Thr Arg Val Val
Pro Pro Leu Ser Ala Gln Tyr Pro Arg Glu Glu Leu Thr Arg Val Val
385 390 395 400
Arg Asn Ala Asp Glu lle Ala Glu Tyr lle Gln Gln Glu Met Gln Leu
405 410 415
He He Glu Asn Pro Pro He Asn He Pro His Gly Tyr Leu Ala He
420 425 430
Leu Ser Glu Ala Lys Trp Val Pro Gly Val Pro Gly Asn Thr Lys 11e 435 440 445
lle Lys Asn Phe Thr Leu Glu Gln lle Val Thr Tyr Val Ala Asp Thr
450 455 460

Cys Arg Cys Phe Phe Glu Arg Gly Tyr Ser Pro Lys Asp Val Ala Val 470 475 Leu Val Ser Thr Val Thr Glu Val Glu Gln Tyr Gln Ser Lys Leu Leu 485 490 495 Lys Ala Met Arg Lys Lys Met Val Val Gln Leu Ser Asp Ala Cys Asp 500 505 510 Met Leu Gly Val His Ile Val Leu Asp Ser Val Arg Arg Phe Ser Gly 520 525 Leu Glu Arg Ser Ile Val Phe Gly Ile His Pro Arg Thr Ala Asp Pro 530 535 Ala Ile Leu Pro Asn Ile Leu Ile Cys Leu Ala Ser Arg Ala Lys Gln 550 555 His Leu Tyr Ile Phe Leu 565

<210> 4082

<211> 208

<212> PRT

<213> Homo sapiens

<400> 4082

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Ser Gly Gln Asn Glu Ala Pro Pro Asn Thr His Ser 11e Pro Gly Glu 20 25 30

Pro Leu Tyr Asn Tyr Ala Ser lle Arg Leu Pro Glu Glu His Ile Pro
35 40 45

Phe Phe Leu His Asn Asn Arg His Ile Ala Thr Val Cys Arg Lys Asp 50 55 60

Ser Leu Cys Pro Tyr Lys Lys His Leu Glu Lys Leu Lys Tyr Cys Trp
65 70 75 80

Gly Tyr Glu Lys Ser Cys Lys Pro Glu Phe Arg Phe Gly Tyr Pro Val 85 90 95

Cys Ser Tyr Val Asp Met Gly Trp Thr Asp Thr Leu Glu Ser Ala Glu 100 105 110 Asp Ile Phe Trp Lys Gln Ala Asp Phe Gly Tyr Ala Arg Glu Arg Leu Glu Glu Met His Val Leu Cys Gln Pro Lys Glu Thr Ser Asp Ser Ser Leu Val Cys Ser Arg Tyr Leu Gln Tyr Cys Arg Ala Thr Asn Leu Tyr Leu Asp Leu Arg Asn Ile Lys Arg Asn His Asp Arg Phe Lys Glu Asp Phe Phe Gln Ser Gly Glu Ile Gly Gly His Cys Lys Leu Asp Ile Arg Thr Leu Thr Ser Glu Gly Arg Arg Lys Ser Pro Leu Gln Ser Trp Cys

<210> 4083

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4083

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 Leu Gln Val
 Trp Asp Gln Glu Arg Arg His Gly Trp Ala Ser Leu Leu

 130
 135
 140

 Thr Gln Val Ser Pro Ala Ala Gly Ser Gly Leu Gly Glu Ala Met Trp

 145
 150
 155

 Val Gly Leu Thr Gln Gly Leu Ser Gly Cys Arg Phe Arg Thr Gly Arg

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 170
 175

 180

<210> 4084

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4084

Met Tyr Val Cys Leu Tyr Glu Thr Phe Ser Ser Leu Phe Ser Leu Leu
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Arg Glu Lys Ile Ser Leu Asn Cys Phe Ser Phe Ser Phe Leu Val Glu 20 25 30

Tyr His Leu His Pro Leu Phe Leu IIe Ala Ser Leu Pro Met Phe Phe 35 40 45

Pro Gln Lys Ser Leu Phe Asp 11e 11e Ser Lys I1e Asp Leu Met Val 50 55 60

Asn Ser Gly Lys Leu Gly Thr Thr Val Lys Pro Lys Ser Leu Val Thr 65 70 75 80

Ser Ser Ser Gly Ala Leu Lys Lys Gln His Lys Lys Pro Phe Asp Ala 85 90 95

Met Asn Asn He Val Ala Asn Leu Leu Leu Asn Leu Thr Arg 100 105 110

<210> 4085

<211> 329

<212> PRT

<213> Homo sapiens

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Met	Ser	His	Phe	Met	Cys	His	Ser	Pro	Thr	His	Lys	Pro	Gln	Gly	Leu
			20					25					30		
Leu	Pro	Trp	Ala	Pro	Phe	His	Gln	Ala	Ser	Val	Ser	Leu	Tyr	Pro	He
		35					40					45			
Ser	Pro	Trp	Pro	Ser	Glu	Ser	Val	Cys	Pro	Pro	Thr	Cys	Pro	Gly	Gly
	50					55					60				
Ala	Ser	Cys	Trp	Phe	Pro	Ala	Gly	Asn	Ala	Trp	Asp	Arg	Val	Glu	Leu
65					70					75					80
Gly	Phe	Leu	Gly	Phe	Gly	Ala	Gly	Gly	Val	Ser	11e	Ala	Val	Pro	Gly
				85					90					95	
Phe	Pro	Leu	Ser	Cys	Gly	Gln	Gly	Cys	Cys	Ala	Gly	61 y	Trp	Leu	Gly
			100					105					110		
His	Gly	Ala	Arg	Phe	Pro	Ala	Lys	Leu	Arg	Ala	Phe	Pro	Gln	Val	He
		115					120					125			
Arg	Arg	Gly	Trp	Leu	Thr	He	Asn	Asn	He	Ser	Leu	Met	Lys	Gly	Gly
	130					135					140				
Ser	Lys	Glu	Tyr	Trp	Phe	Va]	Leu	Thr	Ala	G] u	Ser	Leu	Ser	Trp	Tyr
145					150					155					160
Lys	Asp	Glu	Glu	Glu	Lys	Glu	Lys	Lys	Tyr	Met	Leu	Pro	Leu	Asp	Asn
				165					170					175	
Leu	Lys	He	Arg	Asp	Val	Glu	Lys	Gly	Phe	Met	Ser	Asn	Lys	His	Val
			180					185					190		
Phe	Ala	Пе	Phe	Asn	Thr	Glu	Gln	Arg	Asn	Val	Tyr	Lys	Asp	Leu	Arg
		195					200					205			
Gln	He	Glu	Leu	Ala	Cys	Asp	Ser	Gln	Glu	Asp	Va1	Asp	Ser	Trp	Lys
	210					215					220			•	
Ala	Ser	Phe	Leu	Arg	Ala	Gly	Val	Tyr	Pro	Glu	Lys	Asp	Gln	Val	Arg
225					230					235					240
Ser	Arg	Pro	Ala	G]n	Pro	G1 y	p_{ro}	Glu	p_{ro}	Pro	Pro	Gly	Arg	Gly	Ser
				245					250					255	
Arg	Ala	G1y	Phe	Pro	Gln	Asp	Arg	Ser	Phe	Ser	Gly	His	Val	Ser	Arg

260 265 270 Glu Ser Leu Lys Ser Cys Ser Arg Cys Pro Leu Glu Gln Ala Lys Glu 280 285 Lys Leu Gly Val Leu Cvs His Gln Gly Pro Glu Ser Ser Leu Thr Glu 295 Ala Ser Asp Arg Gly Thr Gln Gly Met Gly Ser His Leu Leu Cys Ser 310 315 320 Pro Leu Phe Ser Pro Ser 11e Leu Arg 325 <210> 4086 <211> 550 <212> PRT <213> Homo sapiens <400> 4086 Met Tyr Ser Thr Asp Glu Asn Leu 11e Leu Ser Pro Leu Leu Gly Asn Val Cys Phe Ser Ser Gln Tyr Ser Ile Cys Phe Thr Leu Gly Ser 20 25 Phe Ala Lys Ile Tyr Ala Asp Thr Phe Gly Asp Ile Asn Tyr Gln Glu 40 45 Phe Ala Lys Arg Leu Trp Gly Asp Ile Tyr Phe Asn Pro Lys Thr Arg 50 55 60 Lys Phe Thr Lys Lys Ala Pro Thr Ser Ser Ser Gln Arg Ser Phe Val Glu Phe Ile Leu Glu Pro Leu Tyr Lys Ile Leu Ala Gln Val Val Gly 85 90 Asp Val Asp Thr Ser Leu Pro Arg Thr Leu Asp Glu Leu Gly 11e His 100 105 110 Leu Thr Lys Glu Glu Leu Lys Leu Asn He Arg Pro Leu Leu Arg Leu 120 125

Val Cys Lys Lys Phe Phe Gly Glu Phe Thr Gly Phe Val Asp Met Cys

Val Gln His 11e Pro Ser Pro Lys Val Gly Ala Lys Pro Lys 11e Glu

140

135

130

145					150					155					160
His	Thr	Tyr	Thr	Gly	Gly	Val	Asp	Ser	Asp	Leu	Gly	Glu	Ala	Met	Ser
				165					170					175	
Asp	Cys	Asp	Pro	Asp	Gly	Pro	Leu	Met	Cys	His	Thr	Thr	Lys	Met	Tyr
			180					185					190		
Ser	Thr	Asp	Asp	Gly	Val	Gln	Phe	His	Ala	Phe	Glv	Arg	Val	Leu	Ser
		195	·				200				·	205			
Glv	Thr		His	Ala	Glv	Gln		Val	Lvs	Val	Leu		Glu	Asn	Tyr
,	210					215			3 -		220		-		- • -
Thr		Glu	Asn	Glu	Glu	Asp	Ser	Gln	He	Cvs		Val	G1 v	Aro	Len
225	204	010	пор	0.0	230	пор	501	0111	110	235			01)	11.1 8	240
	He	Ser	Val	Ala		Tyr	His	11e	Glu		Asn	Arg	Val	Pro	
	110	001		245	713 8	• , .•		110	250		711,711	8	, (1)	255	7110
Glv	Asn	Trn	Val		Пe	Glu	Glv	Val		Gln	Pro	He	Val		Thr
019	11511	1110	260	bea	.110	Giu	Oly	265	пор	0111	130	110	270	rio	1 11,1
Ala	Thr	lle		GIn	Pro	Arg	G1 v		Glu	Glu	Ala	Gln		Pho	Arg
niu		275	7711	014	110	шь	280	изп	014	Old	MIG	285	110	1110	илв
Pro	Len		Phe	Asn	Thr	Thr		Val	He	lve	ماآ		Val	Glu	Pro
110	290	LyS	1110	71.571	1111	295	501	, 41	110	Lys	300	nia	101	Giu	110
Val		Pro	Sor	Glu	Lan	Pro	lve	Mat	الم ا	Acn		Lau	Ara	lve	Val
305	non	110	561	ora	310	110	Lys	SIC C	Leu	315	Oli	Leu	AI g	ràs	320
	Lve	Sor	Twn	Pro		Leu	Thr	Thr	Lvc		Glu	Clu	Sor	Cl _v	
изп	Lys	501	I y I	325	561	Lea	1111	111.1	330	141	ora	Oju	361	335	Olu
Hic	Val	110	lau		Thr	Gly	Glu	Lou		Lou	Acn	Cvc	Vo.1		Hio
1113	vai	110	340	01 y	1111	ULY	Olu	345	1 7 1	Leu	иэр	Cys	350	Me t	1112
Acn	Lou	Ara		Mot	Tur	Ser	Glu		Acn	По	lve	Val		Acn	Dro
пэр	Leu	355	Lys	MC C	1 y 1	361	360	116	nsh	116	Lys	365	та	лэр	110
Val	Val		Dho	Cve	Clu	Thr		Va l	Clu	The	San		Lan	Luc	Cvc
vai	370	1111	THE	Cys	Olu	375	vaj	vai	Olu	1111	380	261	Leu	Lys	Chr
Dho		Cl.,	Tha	Duo	Aan		Lus	Aon	Lua	11.		Mari	11.	Αla	<i>C</i> 1
	ита	oru	1111	110	390	Lys	LyS	ASII	Lys	395	Ш	wie r	116	ATA	
385	Lou	Clu	Lyza	Clv		Ala	C L v	Aon	11.5		Aan	C L.	V. T	Val	400
110	Leu	GIU	Lys		Leu	Ala	GIU	ASP		Gru	ASII	610	vai		G.I N
11.	The	Tana	A	405	1	Livis	م ا	C1	410	Dl	Dle -	C1	Tl	415	Т.,,
116	1111	пр		AIT	LyS	Lys	ren		oiu	rne	rue	υIB		Lys	LYT
Λ	т.	Α -	420	1.	Λ 1	A 1	Λ	425	7.1	т.		DI	430	D	
Asp	1rp	Asp	Leu	ren	Ala	Ala	Arg	ser	11e	rp	Ala	Phe	υLV	Pro	Asp

		435					440					445			
Ala	Thr	Gly	Pro	Asn	He	Leu	Val	Asp	Asp	Thr	Leu	${\tt Pro}$	Ser	Glu	Val
	450					455					460				
Asp	Lys	Ala	Leu	Leu	Gly	Ser	Val	Lys	Asp	Ser	He	Val	Gln	Gly	Phe
465					470					475					480
Gln	Trp	Gly	Thr	Arg	Glu	Gly	Pro	Leu	Cys	Asp	Glu	Cys	Lys	Ser	Thr
				485					490					495	
Ser	Thr	Pro	Pro	Pro	Gln	Ser	Ser	Arg	Val	Leu	Ala	Ala	Arg	His	Met
			500					505					510		
Ser	Gly	Met	Gly	Ser	Pro	Ser	Leu	Gly	Phe	Gly	Arg	Arg	Ser	Ser	Leu
		515					520					525			
Gly	Tyr	Thr	Gly	Pro	Ser	Gln	Val	Leu	Gly	Gln	Leu	Leu	Pro	Phe	Ser
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1				5					10					15	
Ala	Gln	Val	Ser	Gln	Arg	Gly	Lys	Ser	Ser	Phe	Trp	Pro	Ser	Leu	Gln
			0.0					~ -					0.0		

His Ala Leu Gly Pro Ser Asn Ile Phe Lys Ile Arg Lys Glu Leu Phe Ser Ser His Gln Tyr Leu Leu Cys Phe Gln Thr 11e Phe Phe Ala Asn Leu Pro Cys Gln Cys Ser Val Pro Pro Cys Pro His Thr Ser Ser Ala Gly Arg Ala Ala Leu Glu Thr Val Leu Ser Ile Pro Cys Gly Glu Arg Gly Thr Ala Ala Pro Ala Thr Arg

100

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<210> 4089

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4089

Met Asn Cys Thr Ala Pro Pro Gly Arg Gly Met Trp His Ala Ala Trp $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Gln Leu Ser Leu Gly Leu Gly Ser Ala Gly He Ala Gly Val Val Ala 20 25 30

Leu Pro Ala Ala Pro Gly Arg Pro Arg Pro Gly Gln Asp Pro Arg Gly

35 40 45 Gln Pro Asp Met Pro Arg Leu Gln Cys Leu Pro Arg Ser Leu Leu Ser 55 60 Ser Ser Gly Gln Gly Gly Arg Gly Leu Ser Gln Gly His Ser Gln Ala 65 70 75 80 Glu Cys Arg Asn Ser Leu Leu Lys Gly Ser Cys Ala Ser Val Pro Phe 90 Pro Trp Leu His Thr Gln Phe Leu Cys Ala Leu Ser Phe Phe Phe Phe 100 105 Phe Pro Gln Thr Trp Ser Arg Ser Val Thr Gln Ala Arg Val Gln 120 115 125

<210> 4090

<211> 176

<212> PRT

<213> Homo sapiens

<400> 4090

Met Arg Gly Pro His Ser Ser Gln Trp Gly Ser 11e Asp Asp Gly Pro

1 5 10 15

Val Ile Ser Gly Phe Pro Leu Lys Gly Ala Leu Phe Gly Thr Phe Phe
20 25 30

Tyr Ser 11e Ser Leu Phe Ala Trp Ser His IIe Leu Leu Leu Phe Pro 35 40 45

Ala Lys Glu Ser Met Trp Glu Phe lle Tyr Leu Phe lle Glu Thr Glu
50 55 60

Ser His Ser Val Thr Gln Ala Gly Val Gln Trp Cys Asn Leu Ser Ser 65 70 75 80

Leu Gln Pro Pro Pro Pro Pro Phe Lys Gln Phe Ser Cys Leu Ser Phe 85 90 95

Pro Ser Ser Trp Asn Tyr Arg His Leu Pro Pro Cys Pro Ala Asn Phe 100 105 110

Leu Tyr Phe Leu Tyr Phe Phe Phe Phe Leu Arg Trp Ser Leu Ser Val

Leu Pro Lys Leu Glu Tyr Ser Gly Val 11e Ser Ala His Cys Asn Phe

<210> 4091

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4091

Met Val Tyr Asn Asn Glu Val Val Gly Lys Gly Arg Asn Glu Val Asn 1 5 10 15

Gln Thr Lys Asn Ala Thr Arg His Ala Glu Met Val Ala Ile Asp Gln 20 25 30

Val Leu Asp Trp Cys Arg Gln Ser Gly Lys Ser Pro Ser Glu Val Phe 35 40 45

Glu His Thr Val Leu Tyr Val Thr Val Glu Pro Cys Ile Met Cys Ala 50 55 60

Ala Ala Leu Arg Leu Met Lys Ile Pro Leu Val Val Tyr Gly Cys Gln 65 70 75 80

Asn Glu Arg Phe Gly Gly Cys Gly Ser Val Leu Asn 11e Ala Ser Ala 85 90 95

Asp Leu Pro Asn Thr Gly Arg Pro Phe Gln Cys lle Pro Gly Tyr Arg
100 105 110

Ala Glu Glu Ala Val Glu Met Leu Lys Thr Phe Tyr Lys Gln Glu Asn 115 120 125

Pro Asn Ala Pro Lys Ser Lys Val Arg Lys Lys Glu Cys Gln Lys Ser 130 135 140

<210> 4092

<211> 176

<212> PRT

<213> Homo sapiens

<400> 4092 Met Glu Asn Gly Gln 11e Thr Pro Asp Gly Phe Leu Ser Lys Ser Ala 1 5 10 15 Pro Ser Glu Leu Ile Asn Met Thr Gly Asp Leu Met Pro Pro Asn Gln 25 Val Asp Ser Leu Ser Asp Asp Phe Thr Ser Leu Ser Lys Asp Gly Leu 40 45 Ile Gln Lys Pro Gly Ser Asn Ala Phe Val Gly Gly Ala Lys Asn Cys 55 60 Ser Leu Ser Val Asp Asp Gln Lys Asp Pro Val Ala Ser Thr Leu Gly 70 75 Ala Met Pro Asn Thr Leu Gln Ile Thr Pro Ala Met Ala Gln Gly Ile 85 90 Asn Ala Asp lle Lys His Gln Leu Met Lys Glu Val Arg Lys Phe Gly 105 110 Arg Lys Tyr Glu Arg Ile Phe Ile Leu Leu Glu Glu Val Gln Gly Pro 120 125 Leu Glu Met Lys Lys Gln Phe Val Glu Phe Thr Ile Lys Glu Ala Ala 130 135 . 140 Arg Phe Lys Arg Arg Val Leu Ile Gln Tyr Leu Glu Lys Arg His Tyr 150 155 Lys Val His Leu Arg Leu Pro Pro Thr Ser Asp Ile Cys Ser Cys Met 165 170 175

<210> 4093

<211> 326

<212> PRT

<213> Homo sapiens

<400> 4093

Met Glu Gly His Val Asp Arg Ser Ser Gln Pro Thr Ala Arg Arg Ile

1 5 10 15

Ile Asn Ser Asp Pro Val Asp Leu Asp Leu Val Glu Glu Asn Thr Phe

			20					25					30		
Va]	Gly	Pro	Pro	Pro	Ala	Thr	Ser	He	Ser	Gly	Gly	Ser	Val	Tyr	Pro
		35					40					45			
Thr	Glu	Pro	Asn	Cys	Ser	Ser	Ala	Thr	Phe	Thr	Gly	Asn	Leu	Ser	Phe
	50					55					60				
Leu	Ala	Ser	Leu	Gln	Leu	Ser	Ser	Asp	Val	Ser	Ser	Leu	Ser	Pro	Thr
65					70					75					80
Ser	Asn	Asn	Ser	Arg	Ser	Ser	Ser	Ser	Ser	Ser	Asn	Gln	Lys	Ala	Pro
				85					90					95	
Leu	Pro	Cys	Pro	Gln	Gln	Asp	Val	Ser	Arg	Pro	Pro	Gln	Ala	Leu	Pro
			100					105					110		
Cys	Pro	Leu	Arg	Pro	Leu	Pro	Cys	Pro	Pro	Arg	Ala	Ser	Pro	Cys	Pro
		115					120					125			
Pro	Arg	Ala	Ser	Ser	Cys	Pro	Pro	Arg	Ala	Leu	Ser	Cys	Pro	Ser	Gln
	130					135					140				
Thr	Met	Gln	Cys	Gln	Leu	Pro	Ala	Leu	Thr	His	Pro	Pro	Gln	Glu	Val
145					150					155					160
Pro	Cys	Pro	Arg	Gln	Asn	He	Pro	Gly	Pro	Pro	Gln	Asp	Ser	Leu	Gly
				165					170					175	
Leu	Pro	Gln	Asp	Val	Pro	G] y	Leu	Pro	Gln	Ser	He	Leu	His	Pro	Gln
			180					185					190		
Asp	Val	Ala	Tyr	Leu	Gln	Asp	Met	Pro	Arg	Ser	Pro	Gly	Asp	Val	Pro
		195					200					205			
Gln		Pro	Ser	Asp	Va]	Ser	Pro	Ser	Pro	Asp	Ala	Pro	Gln	Ser	Pro
	210					215					220				
	Gly	Met	Pro	His		Pro	Gly	Asp	Val			Ser	Pro	Gly	
225			~	~	230					235					240
Met	Pro	His	Ser		Gly	Gly	Val	Thr		Ser	Pro	Arg	Asp		Pro
		15	6.1	245		D		Di	250	0.1				255	
HIS	Leu	Pro		Asp	Arg	Pro	Asp		lhr	GIn	Asn	Asp		6In	Asn
A	Λ	114	260	Mark	A	11.	C	265	1	C .	C	D	270	C	TI
Arg	Asp	мет 275	rro	мет	Asp	He		Ala	Leu	ser	Ser		ser	Cys	Inr
Dna	Ala		Cly	The	C1	C1 5	280 Asp	S	Va1	San	1	285	1~	L~	1
1.10	290	пЪ	оту	1113	o j u	G1n 295	nsp	Se1	v a l	Ser	300	LyS	LyS	LyS	LyS
lve		Ara	Lve	Glo	116	Pro	Pro	Ace	Pho	Lou		Pho	Acr	Lov	Tur
Lys	د ر ــ	ni g	r) \circ	OIU	.110	110	110	non	1116	Leu	rea	1116	11011	Leu	ıyı

305 310 315 320 Arg Thr Arg Val Lys Asn 325

<210> 4094

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4094

Met Gln His Gln Phe Ser Met Pro Thr Val Pro Pro Pro Glu Glu Leu

1 5 10 15

Leu Asp Cys Glu Thr Leu 11e Asp Gln Tyr Leu Arg Asp Pro Asn Leu 20 25 30

Gln Lys Arg Tyr Pro Leu Ala Leu Asn Arg lle Ala Ala Gln Glu Val 35 40 45

Pro Ile Glu Ile Lys Pro Val Asn Pro Ser Pro Leu Ser Gln Leu Gln 50 55 60

Arg Met Glu Pro Lys Gln Met Phe Trp Val Arg Ala Arg Gly Tyr 11e
65 70 75 80

Gly Lys Ser Thr Pro Trp Met Gly Gly Asn His Ser Pro Arg Gly Leu 85 90 95

Pro Leu lle Cys Cys Val Ala Leu Gly Thr 100 105

<210> 4095

<211> 401

<212> PRT

<213> Homo sapiens

<400> 4095

Met Ser Leu Trp Lys Lys Thr Val Tyr Arg Ser Leu Cys Leu Ala Leu

1 5 10 15

Ala Leu Leu Val Ala Val Thr Val Phe Gln Arg Ser Leu Thr Pro Gly

Gln Phe Leu Gln Glu Pro Pro Pro Pro Thr Leu Glu Pro Gln Lys Ala Gln Lys Pro Asn Gly Gln Leu Val Asn Pro Asn Asn Phe Trp Lys Asn Pro Lys Asp Val Ala Ala Pro Thr Pro Met Ala Ser Gln Gly Pro Gln Ala Trp Asp Val Thr Thr Asn Cys Ser Ala Asn Ile Asn Leu Thr His Gln Pro Trp Phe Gln Val Leu Glu Pro Gln Phe Arg Gln Phe Leu Phe Tyr Arg His Cys Arg Tyr Phe Pro Met Leu Leu Asn His Pro Glu Lys Cys Arg Gly Asp Val Tyr Leu Leu Val Val Val Lys Ser Val 11e Thr Gln His Asp Arg Arg Glu Ala Ile Arg Gln Thr Trp Gly Arg Glu Arg Gln Ser Ala Gly Gly Gly Arg Gly Ala Val Arg Thr Leu Phe Leu Leu Gly Thr Ala Ser Lys Gln Glu Glu Arg Thr His Tyr Gln Gln Leu Leu Ala Tyr Glu Asp Arg Leu Tyr Gly Asp IIe Leu Gln Trp Gly Phe Leu Asp Thr Phe Phe Asn Leu Thr Leu Lys Glu Ile His Phe Leu Lys Trp Leu Asp Ile Tyr Cys Pro His Val Pro Phe Ile Phe Lys Gly Asp Asp Asp Val Phe Val Asn Pro Thr Asn Leu Leu Glu Phe Leu Ala Asp Arg Gln Pro Gln Glu Asn Leu Phe Val Gly Asp Val Leu Gln His Ala Arg Pro Ile Arg Arg Lys Asp Asn Lys Tyr Tyr Ile Pro Gly Ala Leu Tyr Gly Lys Ala Ser Tyr Pro Pro Tyr Ala Gly Gly Gly Phe Leu Met Ala Gly Ser Leu Ala Arg Arg Leu His His Ala Cys Asp Thr Leu

315 320 305 310 Glu Leu Tyr Pro 11e Asp Asp Val Phe Leu Gly Met Cys Leu Glu Val 325 330 Leu Gly Val Gln Pro Thr Ala His Glu Gly Phe Lys Thr Phe Gly Ile 340 345 350 Ser Arg Asn Arg Asn Ser Arg Met Asn Lys Glu Pro Cys Phe Phe Arg 360 365 Ala Met Leu Val Val His Lys Leu Leu Pro Pro Glu Leu Leu Ala Met 370 375 380 Trp Gly Leu Val His Ser Asn Leu Thr Cys Ser Arg Lys Leu Gln Val 395 385 390 400 Leu

<210> 4096

<211> 668

<212> PRT

<213> Homo sapiens

<400> 4096

Met Asn Ala Leu Gln Ser Leu Thr Gly Gly Pro Ala Ala Gly Ala Ala

1 5 10 15

Gly 11e Gly Met Pro Pro Arg Gly Pro Gly Gln Ser Leu Gly Gly Met
20 25 30

Gly Ser Leu Gly Ala Met Gly Gln Pro Met Ser Leu Ser Gly Gln Pro
35 40 45

Pro Pro Gly Thr Ser Gly Met Ala Pro His Ser Met Ala Val Val Ser 50 55 60

Thr Ala Thr Pro Gln Thr Gln Leu Gln Leu Gln Gln Val Ala Leu Gln
65 70 75 80

Ser Ala Met Gln Gln Gln Phe Gln Ala Val Val Gln Gln Gln Gln Gln

		115					120					125			
Leu	Gln	His	Leu	He	Lys	Leu	His	His							
	130					135					140				
Gln	Asn	Gln	Gln	Gln	He	Gln	Gln	Gln	Gln	Gln	Gln	Leu	Gln	Arg	He
145					150					155					160
Ala	Gln	Leu	Gln	Leu	Gln										
				165					170					175	
Gln	Gln	Gln	Gln	Gln	Gln	Ala	Leu	Gln	Ala	Gln	Pro	Pro	He	Gln	Gln
			180					185					190		
Pro	Pro	Met	Gln	Gln	Pro	Gln	Pro	Pro	Pro	Ser	Gln	Ala	Leu	Pro	Gln
		195					200					205			
Gln	Leu	Gln	Gln	Met	His	His	Thr	Gln	His	His	Gln	Pro	Pro	Pro	Gln
	210					215					220				
Pro	Gln	Gln	Pro	Pro	Val	Ala	Gln	Asn	Gln	Pro	Ser	Gln	Leu	Pro	Pro
225					230					235					240
Gln	Ser	Gln	Thr	Gln	Pro	Leu	Val	Ser	Gln	Ala	Gln	Ala	Leu	Pro	Gly
				245					250					255	
Gln	Met	Leu	Tyr	Thr	Gln	Pro	Pro	Leu	Lys	Phe	Val	Arg	Ala	Pro	Met
			260					265					270		
Val	Val	Gln	Gln	Pro	Pro	Va]	Gln	Pro	Gln	Val	Gln	Gln	Gln	Gln	Thr
		275					280					285			
Ala	Val	Gln	Thr	Ala	Gln	Ala	Ala	Gln	Met	Val	Ala	Pro	Gly	Val	Gln
	290					295					300				
Val	Ser	Gln	Ser	Ser	Leu	Pro	Met	Leu	Ser	Ser	Pro	Ser	Pro	Gly	Gln
305					310					315					320
Gln	Val	Gln	Thr	Pro	Gln	Ser	Met	Pro	Pro	Pro	Pro	Gln	Pro	Ser	Pro
				325					330					335	
GIn	Pro	Gly	Gln	Pro	Ser	Ser	Gln	Pro	Asn	Ser	Asn	Val	Ser	Ser	Gly
			340					345					350		
Pro	Ala	Pro	Ser	Pro	Ser	Ser	Phe	Leu	Pro	Ser	Pro	Ser	Pro	Gln	Pro
		355					360					365			
Ser	Gln	Ser	Pro	Val	Thr	Ala	Arg	Thr	Pro	Gln	Asn	Phe	Ser	Val	Pro
	370					375					380				
Ser	Pro	Gly	Pro	Leu	Asn	Thr	Pro	Val	Asn	Pro	Ser	Ser	Val	Met	Ser
385					390					395					400
D	Ala	G1v	Ser	Ser	Gln	Ala	G1n	G1n	G1n	G1n	Tyr	Leu	Asn	Lvs	Len

				405					410					415	
Lys	Glń	Leu	Ser	Lys	Tyr	Пe	Glu	Pro	Leu	Arg	Arg	Met	He	Asn	Lys
			420					425					430		
11e	Asp	Lys	Asn	Glu	Asp	Arg	Lys	Lys	Asp	Leu	Ser	Lys	Met	Lys	Ser
		435					440					445			
Leu	Leu	Asp	He	Leu	Thr	Asp	Pro	Ser	Lys	Arg	Cys	Pro	Leu	Lys	Thr
	450					455					460				
Leu	Gln	Lys	Cys	Glu	He	Ala	Leu	Glu	Lys	Leu	Lys	Asn	Asp	Met	Ala
465					470					475					480
Val	Pro	Thr	Pro	Pro	Pro	Pro	Pro	Val	Pro	Pro	Thr	Lys	Gln	Gln	Tyr
				485					490					495	
Leu	Cys	Gln	Pro	Leu	Leu	Asp	Ala	Val	Leu	Ala	Asn	He	Arg	Ser	Pro
			500					505					510		
Val	Phe	Asn	His	Ser	Leu	Tyr	Arg	Thr	Phe	Va1	Pro	Ala	Met	Thr	Ala
		515					520					525			
He	His	Gly	Pro	Pro	He	Thr	Ala	Pro	Val	Val	Cys	Thr	Arg	Lys	Arg
	530					535					540				
Arg	Leu	Glu	Asp	Asp	Glu	Arg	Gln	Ser	He	Pro	Ser	Va]	Leu	Gln	Gly
545					550					555					560
Glu	Val	Ala	Arg	Leu	Asp	Pro	Lys	Phe		Val	Asn	Leu	Asp	Pro	Ser
				565					570					575	
His	Cys	Ser	Asn	Asn	Gly	Thr	Val	His	Leu	He	Cys	Lys	Leu	Asp	Asp
			580					585					590		
Lys	Asp		Pro	Ser	Va]	Pro		Leu	G] u	Leu	Ser	Val	Pro	Ala	Asp
		595					600					605			
Tyr	Pro	Ala	Gln	Ser	Pro	Leu				Arg	Gln	Trp	Gln	Tyr	Asp
	610										620				
	Asn	Pro	Phe	Leu		Ser	Val	His	Arg		Met	Thr	Ser	Arg	Leu
625					630					635					640
Leu	GIn	Leu	Pro		Lys	His	Ser	Val		Ala	Leu	Leu	Asn		lrp
۸ ۱	(7.1	c	N 3	645	C 1	. 1	C	,	650	, 1	4.3			655	
Ala	GIn	Ser		HIS	GIn	Ala	Uys		Ser	Ala	Ala				
			660					665							

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<211> 100
<212> PRT
<213> Homo sapiens
<400> 4097
Met Gln His Asn Ala Trp Leu lle Phe Val Phe Ser Val Asp Thr Gly
Phe Cys His Val Val Gln Ala Gly Leu Lys Leu Leu Ser Ser Ser Asp
                                                      30
                                 25
Pro Pro Thr Leu Ala Ser Gln Ser Ala Arg Ile Thr Gly Met Ser His
                             40
                                                  45
Gly Ala Trp Pro Ser Leu Ala Val Phe Tyr Lys Ala Lys His Ala Thr
                                              60
                         55
Thr 11e Gln Pro Thr Asn Tyr Thr Leu Gly His Leu Ser Gln Arg Asn
                     70
                                          75
                                                              80
 65
Glu Asn Ile Leu Thr Lys Asn Pro His Met Asn Ala His Ser Ile Leu
                 85
                                     90
                                                          95
Gly His Asn Ser
            100
<210> 4098
<211> 135
<212> PRT
<213> Homo sapiens
<400> 4098
Met Ser Ser Leu Glu IIe Ser Ser Ser Cys Phe Ser Leu Glu Thr Lys
                                      10
                                                          15
Leu Pro Leu Ser Pro Pro Leu Val Glu Asp Ser Ala Phe Glu Pro Ser
             20
                                 25
Arg Lys Asp Met Asp Glu Val Glu Glu Lys Ser Lys Asp Val Ile Asn
                             40
                                                  45
Phe Thr Ala Glu Lys Leu Ser Val Asp Glu Val Ser Gln Leu Val 11e
     50
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Ser Pro Leu Cys Gly Ala lle Ser Leu Phe Val Gly Thr Thr Arg Asn

Asn Phe Glu Gly Lys Lys Val IIe Ser Leu Glu Tyr Glu Ala Tyr Leu Pro Met Ala Glu Asn Glu Val Arg Lys Ile Cys Ser Asp Ile Arg Gln Lys Trp Pro Val Lys His Ile Ala Val Phe His Arg Leu Gly Tyr Asp Phe Leu Tyr His Ser Lys Ser <210> 4099 <211> 488 <212> PRT <213> Homo sapiens <400> 4099 Met Gln His Val Ser Ser Gln Ser Ser Gln Arg His Val Gln Trp Pro Gly Ala Cys Pro Gly Ala Gly Glu Glu Gln Pro Ala Cys Ser Gln Pro Ser Leu Pro Leu Thr Leu Pro Ser Pro Ser His Gln Leu Gln Gln Leu Met Val Arg Gly Gly Pro Ala Gly Gly Gln Asn Met Asn Val Asp Leu Gln Gly Val Gly Pro Gly Leu Gln Gly Ser Pro Gln Val Thr Leu Ala Pro Leu Pro Leu Pro Ser Pro Thr Ser Pro Gly Phe Gln Phe Ser Ala Gln Pro Arg Arg Phe Glu His Gly Ser Pro Ser Tyr Ile Gln Val Thr Ser Pro Leu Ser Gln Gln Val Gln Thr Gln Ser Pro Thr Gln Pro Ser Pro Gly Pro Gly Gln Ala Leu Gln Asn Val Arg Ala Gly Ala Pro

Gly	Pro	Gly	Leu	Gly	Leu	Cys	Ser	Ser	Ser	Pro	Thr	Gly	Asp	Phe	Val
145					150					155					160
Asp	Ala	Ser	Val	Leu	Val	Arg	Gln	Пe	Ser	Leu	Ser	Pro	Ser	Ser	G1 y
				165					170					175	
Gly	His	Leu	Val	Phe	Gln	Asp	Gly	Ser	Gly	Leu	Thr	Gln	Пе	Ala	Gln
			180					185					190		
Gly	Ala	Gln	Va]	G1n	Leu	Gln	His	Pro	Gly	Thr	Pro	He	Thr	Val	Arg
		195					200					205			
Glu	Arg	Arg	Pro	Ser	Gln	Pro	His	Thr	Gln	Ser	G1y	Gly	Thr	lle	His
	210					215					220				
His	Leu	Gly	Pro	G1n	Ser	Pro	Ala	Ala	Ala	G1 y	Gly	Ala	Gly	Leu	Gln
225					230					235					240
Pro	Leu	Ala	Ser	Pro	Ser	His	Пе	Thr	Thr	Ala	Asn	Leu	Pro	Pro	Gln
				245					250					255	
lle	Ser	Ser	He	He	Gln	Gly	Gln	Leu	Val	GIn	Gln	Gln	G1n	Val	Leu
			260					265					270		
G1n	Gly	Pro	Pro	Leu	Pro	Arg	Pro	Leu	Gly	Phe	Glu	Arg	Thr	Pro	Gly
		275					280					285			
Val	Leu	Leu	Pro	Gly	Ala	Gly	G1 y	Ala	Ala	Gly	Phe	Gly	Met	Thr	Ser
	290					295					300				
Pro	Pro	Pro	Pro	Thr	Ser	Pro	Ser	Arg	Thr	Ala	Val	Pro	Pro	Gly	Leu
305					310					315					320
Ser	Ser	Leu	Pro	Leu	Thr	Ser	Val	Gly	Asn	Thr	Gly	Met	Lys	Lys	Val
				325					330					335	
Pro	Lys	Lys	Leu	Glu	Glu	Пе	Pro	Pro	Ala	Ser	Pro	Glu	Met	Ala	Gln
			340					345					350		
Met	Arg	Lys	Gln	Cys	Leu	Asp		His	His	Gln	Glu	Met	Gln	Ala	Leu
		355					360					365			
Lys		Val	Phe	Lys	G]u	Tyr	Leu	11e	Glu	Leu	Phe	Phe	Leu	Gln	His
	370					375					380				
Phe	Gln	Gly	Asn	Met	Met	Asp	Phe	Leu	Ala	Phe	Lys	Glu	Arg	Leu	
385					390					395					400
Gly	Pro	Leu	Gln		Tyr	Leu	Arg	Gln		Asp	Leu	Asp	He		Glu
				405					410					415	
Glu	Glu	Glu		His	Phe	Glu	Val		Asn	Asp	Glu	Val	Lys	Val	Val
			420					425					430		

Ala Arg Lys His Gly Gln Pro Gly Thr Ser Val Ala 11e Ala Thr Gln
435

Leu Pro Pro Arg Thr Ser Ala Ala Phe Pro Ala Gln Gln Gln Pro Leu
450

Gln Gln Ile His Met Gly Thr Pro Val Pro Gly Asp Val Asn Ser Ile
465

Lys Met Glu Ala Ser Lys Arg Gln
485

<210> 4100 <211> 262

<212> PRT

145

<213> Homo sapiens

<400> 4100 Met Tyr Ile Leu Val Tyr Thr Tyr Val Tyr Thr Cys Ile Cys Ile Arg 10 Val Tyr Val His Val Tyr Gly Cys Thr Asp Val Tyr Ser Met Tyr Ile 20 25 30 Cys Met His Val Tyr Met Cys Thr Leu Tyr Thr Val Tyr Met Cys Val 40 45 Tyr Met Cys Thr Cys lle Pro Val Arg Val Tyr lle His Ile lle Tyr 55 Thr Tyr Met Tyr 11e His Met His Ala Tyr Ala Tyr Met Cys Val Phe 65 70 75 Ile Cys Thr His Met His Thr Tyr Val Tyr Ser Tyr Ala Arg Val Cys 90 85 lle His Met Tyr Ile His Ile His Ala Tyr Ala Tyr Ile Cys Ile Phe 100 105 110 Ile Tyr Thr His Met His Thr Tyr Val Tyr Ser Tyr Ala Arg Ile Cys 120

Ile His Met Tyr Ile His Ile His Ala Tyr Ala Cys Ile Cys Met Phe

Met Tyr Ala His Met Arg Ala Tyr Val Tyr Ser Tyr Thr Arg lle Cys

140

160

155

135

Ile His Ile Cys Ile Phe Ile Tyr Thr Tyr Val Cys Met Cys Val Cys 170 165 Ser Cys Ile His Val Tyr Thr Cys Val Tyr Ile His Ile Tyr Ile Gly 180 185 190 Met His 11e Cys Val Tyr Ser Tyr Met His Arg Tyr Thr Tyr Val Tyr 200 205 Ile His Ile Tyr lle Cys Ile His Met Tyr Thr His Ile His Ile His 210 215 220 Thr His Asn Phe Ser Leu Thr 11e Cys Leu Leu Met Asn Thr Val Cys 225 230 235 240 Phe Ser Ile Leu Ala Thr Gly Asn Asn Ala Ser Met Asn Met Ala Val 245 250 255 Gln Ile Tyr Leu Arg Tyr 260

<210> 4101

<211> 527

<212> PRT

<213> Homo sapiens

<400> 4101

Met Trp Pro Phe Ile Cys Gln Phe Ile Glu Lys Leu Phe Arg Glu Thr
1 5 10 15

lle Glu Pro Ala Val Arg Gly Ala Asn Thr His Leu Ser Thr Phe Ser
20 25 30

Phe Thr Lys Val Asp Val Gly Gln Gln Pro Leu Arg Ile Asn Gly Val
35 40 45

Lys Val Tyr Thr Glu Asn Val Asp Lys Arg Gln Ile 11e Leu Asp Leu 50 55 60

Gln Ile Ser Phe Val Gly Asn Cys Glu lle Asp Leu Glu Ile Lys Arg
65 70 75 80

Tyr Phe Cys Arg Ala Gly Val Lys Ser Ile Gln Ile His Gly Thr Met 85 90 95

Arg Val Ile Leu Glu Pro Leu Ile Gly Asp Met Pro Leu Val Gly Ala 100 105 110

Leu	Ser	lle	Phe	Phe	Leu	Arg	Lys	Pro	Leu	Leu	Glu	lle	Asn	Trp	Thr
		115					120					125			
Gly	Leu	Thr	Asn	Leu	Leu	Asp	Val	Pro	Gly	Leu	Asn	Gly	Leu	Ser	Asp
	130					135					140				
Thr	lle	He	Leu	Asp	He	He	Ser	Asn	Tyr	Leu	Val	Leu	Pro	Asn	Arg
145					150					155					160
He	Thr	Val	Pro	Leu	Val	Ser	G1u	Val	Gľn	He	Ala	Gln	Leu	Arg	Phe
				165					170					175	
Pro	Val	Pro	Lys	Gly	Val	Leu	Arg	lle	His	Phe	Ile	Glu	Ala	Gln	Asp
			180					185					190		
Leu	Gln	Gly	Lys	Asp	Thr	Tyr	Leu	Lys	Gly	Leu	Val	Lys	Gly	Lys	Ser
		195					200					205			
Asp	Pro	Tyr	Gly	lle	He	Arg	Val	Gly	Asn	Gln	lle	Phe	Gln	Ser	Arg
	210					215					220				
Val	He	Lys	Glu	Asn	Leu	Ser	Pro	Lys	Trp	Asn	Glu	Val	Tyr	Glu	Ala
225					230					235					240
Leu	Val	Tyr	Glu	His	Pro	G1 y	Gln	Glu	Leu	Glu	lle	Glu	Leu	Phe	Asp
				245					250					255	
Glu	Asp	Pro	Asp	Lys	Asp	Asp	Phe	Leu	Gly	Ser	Leu	Met	He	Asp	Leu
			260					265					270		
Пe	Glu		Glu	Lys	Glu	Arg	Leu	Leu	Asp	Glu	Trp	Phe	Thr	Leu	Asp
		275					280					285			
Glu		Pro	Lys	Gly	Lys	Leu	His	Leu	Arg	Leu		Trp	Leu	Thr	Leu
	290			_		295					300				
	Pro	Asn	Ala	Ser		Leu	Asp	Lys	Val		Thr	Asp	He	Lys	
305			0.1		310					315					320
Asp	Lys	Asp	GIn		Asn	Asp	Gly	Leu		Ser	Ala	Leu	Leu		Leu
T			C	325			,	Б	330	61	,	,	T 1	335	C
lyr	Leu	Asp		Ala	Arg	Asn	Leu		Ser	61 y	Lys	Lys		Ser	Ser
Α	D	Λ	340	W - 1	V - 1	C1.	M 4	345	V 3	C1	11.	,	350	C1	C1
Asn	Pro		Pro	vai	vai	G1n		ser	vai	СТУ	HIS		Ala	GIN	G1 ti
Con	Luc	355	Arra	Tur	Luc	Thu	360	C1	Dwa	Val	Т того	365	C1	Aan	Dbs
set.	370	116	AI.8	ıyı	LyS	Thr 375	ASII	010	L10	val	380	61 u	GIU	ASII	rne
Tha		Pho	110	Hic	Acn	Pro	Lyc	Ara	Cln	Acr		C1	Vol	CI.	Vol
385	тие	THE	116	1112	390	110	LyS	MIR	0111	395	Leu	oru	val	OTU	400
500					550					999					400

Arg Asp Glu Gln His Gln Cys Ser Leu Gly Ser Leu Lys Val Pro Leu Ser Gln Leu Leu Thr Ser Glu Asp Met Thr Val Ser Gln Arg Phe Gln Leu Ser Asn Ser Gly Pro Asn Ser Thr 11e Lys Met Lys 11e Ala Leu Arg Val Leu His Leu Glu Lys Arg Glu Arg Pro Pro Asp His Gln His Ser Ala Gln Val Lys Arg Pro Ser Val Ser Lys Glu Gly Arg Lys Thr Ser Ile Lys Ser His Met Ser Gly Ser Pro Gly Pro Gly Gly Ser Asn Thr Ala Pro Ser Thr Ser Gln Ser Arg Ser Arg Pro Pro Ala Ser Pro Arg Thr Ser Arg Cys Pro Ser Pro Pro Arg Ser Cys Gly Lys Gly

<210> 4102

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4102 ⋅

Met Gly Pro Cys Asn Gln Ala Gln Leu Cys Leu Val Phe Val Gln Thr Ser Asn Gly Pro Gly Arg Gly Trp His Phe Gly Tyr Phe Cys Leu Arg Gly Phe Leu Tyr Pro Asp Gln Ser Gln Pro His Ser Gln Trp Val Met Arg Val Glu lle Ala Ser Ser Tyr Pro Cys Phe Leu Gln Cys Leu Phe Pro His Pro Asn Arg His Thr His Ala His Thr His Thr His Thr His Thr His Thr Pro Ser Phe Pro Leu Leu Ser Leu Gly Thr

Gly Ala Pro Pro Cys Ser Pro Cys Ser Thr Gln Pro Pro Gly Arg Ser

100 105 110

Pro Pro Thr Phe Asp Glu Ser Pro Pro Arg Lys Lys Tyr Asn Asn Leu

115 120 125

Glu Phe Gln Leu Asn Leu Gln

130 135

<210> 4103

<211> 136

<212> PRT

<213> Homo sapiens

<400> 4103

Met Arg Val Arg Met Cys Thr Tyr Cys Ser Leu Asp Phe Pro Ile Thr

1 5 10 15

Lys Cys Leu Ser Gln Val Thr Leu Ser Ser Ser Gln Phe Leu Arg

20 25 30

Gln Ala Met Glu Thr Gly Ala Asp Ala Lys Trp Ser Arg Gly Arg Arg

35 40 45

Ala Ala Cys Phe Ala Gly Pro Ala Pro Arg Leu Pro Ser Arg Ala Ala 50 55 60

Leu Ser Leu Gly Thr Val Asn Ser His Arg Ser Cys Gln Pro Pro Val 65 70 75 80

Leu Gly His Ala Pro His Met Asp Leu Glu Ser Val Ser Leu Leu Leu

85 90 95

Met Ser Thr Ser Arg Ser Leu Ser Phe Ala Phe Met Cys Leu Tyr Ser 100 105 110

Leu Tyr Ser Ser Ala Ile Gly Val Arg Ser Ser Phe Trp Thr Phe Leu 115 120 125

Met Gln 11e Lys Glu Lys Gly Val 130 135

<210> 4104

<211> 122

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<212> PRT
<213> Homo sapiens
<400> 4104
Met Gly His Ala Gly Cys Gln Phe Lys Ala Leu Leu Trp Lys Asn Trp
 1
                                     10
Leu Cys Arg Leu Arg Asn Pro Val Leu Phe Leu Ala Glu Phe Phe Trp
                                 25
Pro Cys Ile Leu Phe Val Ile Leu Thr Val Leu Arg Phe Gln Glu Pro
                             40
Pro Arg Tyr Arg Asp Ile Cys Tyr Leu Gln Pro Arg Asp Leu Pro Ser
                                             60
                         55
Cys Gly Val Ile Pro Phe Val Gln Ser Leu Leu Cys Asn Thr Gly Ser
                     70
                                          75
65
                                                              80
Arg Cys Arg Asn Phe Ser Tyr Glu Gly Ser Met Glu His His Phe Arg
                                     90
Leu Ser Arg Phe Gln Thr Ala Ala Asp Pro Lys Lys Val Asn Asn Leu
                                105
                                                     110
Ala Phe Leu Lys Glu lle Gln Asp Leu Ala
        115
                            120
<210> 4105
<211> 132
<212> PRT
<213> Homo sapiens
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Met Ser Ser Ile Val Cys Pro Met Glu Glu Val Leu Arg Ala Ser Ala
 1
                  5
                                     10
                                                          15
Gln Asn Lys Asp Asn Thr Lys Gly 11e Gly Arg Phe Tyr Lys Ala Gln
                                 25
```

Phe Leu Ser Leu Met Ser Phe Ile Lys Tyr Phe Pro Tyr Tyr Leu Lys

Ala Thr lle Gln Ser Ser Phe Ser Ala Ser Thr Val His Leu Val Cys

45

Gly Thr His Ser Val Gln Cys Phe lle Phe Pro Val Ser Ile Ala Cys His Leu Gly Arg 11e Leu 11e Ser Pro Val Thr Thr Thr Pro Asn Arg Ala Leu His Gly Ser Glu Cys Ser Lys Tyr His Leu Leu Thr Asn Ala Ser Lys Ser Thr Thr Asn Gln Asn Ile Val Pro Lys Glu Lys Ser Thr Lys Tyr His Asn <210> 4106 <211> 824 <212> PRT <213> Homo sapiens <400> 4106 Met 11e Arg Ser Ser Ser Asp Ser Ser Tyr Met Ser Gly Ser Pro Gly Gly Ser Pro Gly Ser Gly Ser Ala Glu Lys Pro Ser Ser Asp Val Asp lle Ser Thr His Ser Pro Ser Leu Pro Leu Ala Arg Glu Pro Val Val Leu Ser 11e Ala Ser Ser Arg Leu Pro Gln Glu Ser Pro Pro Leu Pro Glu Ser Arg Asp Ser His Pro Pro Leu Arg Leu Lys Lys Ser Phe Glu lle Leu Val Arg Lys Pro Met Ser Ser Lys Pro Lys Pro Pro Pro Arg Lys Tyr Phe Lys Ser Asp Ser Asp Pro Gln Lys Ser Leu Glu Glu Arg Glu Asn Ser Ser Cys Ser Ser Gly His Thr Pro Pro Thr Cys Gly Gln

Glu Ala Arg Glu Leu Leu Pro Leu Leu Pro Gln Glu Asp Thr Ala

	130					135					140				
Gly	Arg	Ser	Pro	Ser	Ala	Ser	Ala	Gl y	Cys	Pro	Gly	Pro	Gly	He	Gly
145					150					155					160
Pro	Gln	Thr	Lys	Ser	Ser	Thr	Glu	Gly	Glu	Pro	Gly	Trp	Arg	Arg	Ala
				165					170					175	
Ser	Pro	Val	Thr	Gln	Thr	Ser	Pro	He	Lys	His	Pro	Leu	Leu	Lys	Arg
			180					185					190		
Gln	Ala	Arg	Met	Asp	Tyr	Ser	Phe	Asp	Thr	Thr	Ala	Glu	Asp	Pro	Trp
		195					200					205			
Val	Arg	He	Ser	Asp	Cys	Ile	Lys	Asn	Leu	Phe	Ser	Pro	Ile	Met	Ser
	210					215					220				
G] u	Asn	His	Gly	His	Met	Pro	Leu	Gln	Pro	Asn	Ala	Ser	Leu	Asn	Glu
225					230					235					240
Glu	Glu	Gly	Thr	Gln	Gly	His	Pro	Asp	Gly	Thr	Pro	Pro	Lys	Leu	Asp
				245					250					255	
Thr	Ala	Asn	Gly	Thr	Pro	Lys	Va]	Tyr	Lys	Ser	Ala	Asp	Ser	Ser	Thr
			260					265					270		
Val	Lys	Lys	Gly	Pro	Pro	Val	Ala	Pro	Lys	Pro	Ala	Trp	Phe	Arg	Gln
		275					280					285			
Ser	Leu	Lys	Gly	Leu	Arg	Asn	Arg	Ala	Ser	Asp	Pro	Arg	Gly	Leu	Pro
	290					295					300				
Asp	Pro	Ala	Leu	Ser	Thr	Gln	Pro	Ala	Pro	Ala	Ser	Arg	Glu	His	Leu
305					310					315					320
G1 y	Ser	His	He	Arg	Ala	Ser	Ser	Ser	Ser	Ser	Пе	Arg	Gln	Arg	11e
				325					330					335	
Ser	Ser	Phe	Glu	Thr	Phe	Gly	Ser	Pro	Gln	Leu	Pro	Asp	Lys	Gly	Ala
			340			•		345					350		
G1n	Arg		Ser	Leu	Gln	Pro		Ser	Gly	Glu	Ala	Ala	Lys	Pro	Leu
		355					360					365			
Gly		His	Glu	Glu	Gly		Phe	Ser	Gly	Leu		G1 y	Arg	Gly	Ala
	370					375					380				
	Pro	Thr	Leu	Val		Gln	Gln	Pro	Glu		Val	Leu	Ser	Ser	
385					390					395					400
Ser	Pro	Ala	Ala		G1u	Ala	Arg	Asp		Gly	Val	Ser	Glu		Pro
		0.7		405					410		-1-		~ 7	415	
Pro	Pro	Gly	Arg	GIn	Pro	Asn	Gln	Lys	Thr	Leu	Pro	Pro	GI y	Pro	Asp

			420					425					430		
Pro	Leu	Leu	Arg	Leu	Leu	Ser	Thr	Gln	Ala	G1u	Glu	Ser	Gln	Gly	Pro
		435					440					445			
Val	Leu	Lys	Met	Pro	Ser	Gln	Arg	Ala	Arg	Ser	Phe	Pro	Leu	Thr	Arg
	450					455					460				
Ser	Gln	Ser	Cys	Glu	Thr	Lys	Leu	Leu	Asp	Glu	Lys	Thr	Ser	Lys	Leu
465					470					475					480
Tyr	Ser	He	Ser	Ser	Gln	Val	Ser	Ser	Ala	Val	Met	Lys	Ser	Leu	Leu
				485					490					495	
Cys	Leu	Pro	Ser	Ser	lle	Ser	Cys	Ala	Gln	Thṛ	Pro	Cys	lle	Pro	Lys
			500					505					510		
Glu	Gly	Ala	Ser	Pro	Thr	Ser	Ser	Ser	Asn	Glu	Asp	Ser	Ala	Ala	Asn
		515					520					525			
Gly	Ser	Ala	Glu	Thr	Ser	Ala	Leu	Asp	Thr	Gly	Phe	Ser	Leu	Asn	Leu
	530					535					540				
Ser	Glu	Leu	Arg	Glu	Tyr	Thr	Glu	61 y	Leu	Thr	Glu	Ala	Lys	Glu	Asp
545					550					555					560
Asp	Asp	Gly	Asp	His	Ser	Ser	Leu	Gln	Ser	Gly	Gln	Ser	Val	lle	Ser
				565					570					575	
Leu	Leu	Ser	Ser	Glu	Glu	Leu	Lys	Lys	Leu	11e	Glu	Glu	Va1	Lys	Val
			580					585					590		
Leu	Asp	Glu	Ala	Thr	Leu	Lys	Gln	Leu	Asp	Gly	He	His	Val	Thr	11e
		595					600					605			
Leu	His	Lys	Glu	Glu	Gly	Ala	Gly	Leu	Gly	Phe	Ser	Leu	Ala	Gly	Gly
	610					615					620				
Ala	Asp	Leu	Glu	Asn	Lys	Val	Пe	Thr	Va]	His	Arg	Val	Phe	Pro	Asn
625					630					635					640
Gly	Leu	Ala	Ser	Gln	Glu	Gly	Ala	He	Gln	Lys	Gly	Asn	Glu	Val	Leu
				645					650					655	
Ser	Пе	Asn	Gly	Lys	Ser	Leu	Lys	Gly	Thr	Thr	llis	His	Asp	Ala	Leu
			660					665					670		
Ala	Пе	Leu	Arg	Gln	Ala	Arg	Glu	Pro	Arg	GIn	Ala	Val	He	Val	Thr
		675					680					685			
Arg	Lys	Leu	Thr	Pro	Glu	Ala	Met	Pro	Asp	Leu	Asn	Ser	Ser	Thr	Asp
	690					695					700				
Ser	Ala	Ala	Ser	Ala	Ser	Ala	Ala	Ser	Asp	Va]	Ser	Val	Glu	Ser	Thr

705					710					715					720
Glu	Ala	Thr	Val	Cys	Thr	Val	Thr	Leu	Glu	Lys	Met	Ser	Ala	G1 y	Leu
				725					730					735	
Gly	Phe	Ser	Leu	Glu	Gly	Gly	Lys	Gly	Ser	Leu	His	Gly	Asp	Lys	Pro
			740					745					750		
Leu	Thr	lle	Asn	Arg	He	Phe	Lys	Gly	Ala	Ala	Ser	Glu	Gln	Ser	Glu
		755					760					765			
Thr	Val	Gln	Pro	Gly	Asp	Glu	lle	Leu	Gln	Leu	Gly	Gly	Thr	Ala	Met
	770					775					780				
Gln	Gly	Leu	Thr	Arg	Phe	Glu	Ala	Trp	Asn	Ile	Ile	Lys	Ala	Leu	Pro
785					790		,			795					800
Asp	Gly	Pro	Val	Thr	He	Val	He	Arg	Arg	Lys	Ser	Leu	Gln	Ser	Lys
				805					810					815	
Glu	Thr	Thr	Ala	Ala	Gly	Asp	Ser								
			820												

<210> 4107

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4107

 Met
 Glu
 Glu
 Ser
 Glu
 Cys
 Thr
 Arg
 Glu
 Thr
 Val
 Arg
 Pro
 Thr
 Ala

 I
 I
 5
 I
 I
 III
 65 70 75 80
Thr Phe Tyr Gln Asp Pro Ser Phe His Leu Ser Leu Ala Trp Cys Val

Thr Phe Tyr Gln Asp Pro Ser Phe His Leu Ser Leu Ala Trp Cys Val 85 90 95

Gly Asp Ala Arg Leu Gln Leu Glu Gly Gln Cys Leu Gln Glu Leu Gln

Ala lle Val Asp Gly Phe Glu Asp Ala Glu Val Leu Leu Arg Val His Thr Glu Gln Val Arg Cys Lys Ser Gly Asn Lys Phe Phe Ser Met Pro Leu Lys <210> 4108 <211> 139 <212> PRT <213> Homo sapiens <400> 4108 Met Val Leu Pro Gly Leu Thr Leu Cys Ser Gly Ala Val Gly Thr Ser Thr Gln Trp Leu Met Ala Ala Leu Ala Gln Leu Ser Arg Pro Gly Arg Arg Leu Pro Pro Pro Pro Cys Cys Cys Leu Val Gln Pro Leu His Gly Ser Ser Ser Leu Cys Gln Arg Glu Gly Leu Phe His His Lys Gln His Ser His Ser His Gly Ala Trp Phe Leu Ser Pro Val His His Ser Gln 11e Pro Gln Leu Ala Ala Cys Pro Leu Gln Ser Leu Arg Leu Ser Lys Pro Arg Ser Pro Gly Arg Cys Cys Ala Trp Cys Gly Cys Leu Asn Cys Glu Pro Phe Lys Trp Leu Pro Ser Pro Arg Arg Trp Pro Gly Ala Cys Leu Lys Leu Cys Cys Thr Gln Ala Leu Cys

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<212> PRT
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Leu Glu Arg lle Asn Pro Asp His Ser Phe Pro Val Ser Ser His Cys
             20
                                                      30
                                 25
Leu Arg Ala Ala Ala Phe Tyr Val Arg Gly Leu Phe Ser Phe Phe Gln
                             40
                                                  45
Gly Arg Tyr Asn Glu Ala Lys Arg Phe Leu Arg Glu Thr Leu Lys Met
                         55
Ser Asn Ala Glu Asp Leu Asn Arg Leu Thr Ala Cys Ser Leu Val Leu
65
                     70
                                          75
                                                              80
Leu Gly His lle Phe Tyr Val Leu Gly Asn His Arg Glu Ser Asn Asn
                                     90
Met Val Val Pro Ala Met Gln Leu Ala Ser Lys Ile Pro Asp Met Ser
            100
                                105
                                                     110
Val Gln Leu Trp Ser Ser Ala Leu Leu Arg Asp Leu Asn Lys Ala Cys
        115
                            120
                                                 125
Gly Asn Ala Met Asp Ala His Glu Ala Ala Gln Met His Gln Asn Phe
                        135
                                             140
Ser Gln Gln Leu Leu Gln Asp His 11e Glu Ala Cys Ser Leu Pro Glu
145
                    150
                                         155
                                                             160
His Asn Leu 11e Thr Trp Thr Asp Gly Pro Pro Pro Val Gln Phe Gln
                165
                                    170
                                                         175
Ala Gln Asn Gly Pro Asn Thr Ser Leu Ala Ser Leu Leu
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<210> 4110

<211> 851

<212> PRT

<213> Homo sapiens

<400)> 4.	110													
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Ser	Arg	Gln	Leu 20	Val	Arg	Thr	Pro	61n 25	Arg	Thr	Ala	Gly	G1u 30	Ala	Ser
Thr	Ser	Ser	Met	Leu	11e	Pro	Lys	Pro	Pro	Pro	Lys	Thr	Asp	He	Leu
		35					40					45			
Lys	Ser	Leu	Asp	Thr	Met	Asp	Asp	Pro	Asp	Thr	Val	Gly	Ser	He	Pro
	50					55					60				
Va1	Phe	Lys	Thr	Glu	Trp	He	Met	Thr	His	Glu	Glu	His	His	Ala	Ala
65					70					75					80
Lys	Thr	Leu	Gly	He	G] y	Lys	Ala	He	Ala	Val	Leu	Thr	Ser	Gly	G1 y
				85					90					95	
Asp	Ala	Gln	Gly	Met	Asn	Ala	Ala	Val	Arg	Ala	Val	Val	Arg	Val	Gly
			100					105					110		
lle	Phe		Gly	Ala	Arg	Val		Phe	Va]	His	Glu		Tyr	Gln	Gly
		115	0.1	0.1			120		0.1		m.	125	61		
Leu		Asp	GIy	Gly	Asp	His	116	Lys	Glu	Ala		Irp	Glu	Ser	Val
San	130	Mot	Lau	Cln	Lan	135	Clu	The	Vol	116	140	Can	Ala	Ana	Cve
145	Me t	Met	Leu	OIII	150	G1 y	01 y	1111	Vali	155	Oly	361	ита	MI g	160
	Asn	Phe	Arø	Glu		G] u	Glv	Arg	Leu		Ala	Ala	Tyr	Asn	
L, J	пор	7 170	8	165	6	014	01,	5	170	6	,,,,		• , •	175	200
Val	Lys	Arg	Gly		Thr	Asn	Leu	Cys		He	Gly	Gly	Asp		Ser
			180					185					190		
Leu	Thr	Gly	Ala	Asp	Thr	Phe	Arg	Ser	Glu	Trp	Ser	Asp	Leu	Leu	Ser
		195					200					205			
Asp	Leu	Gln	Lys	Ala	Gly	Lys	He	Thr	Asp	Glu	Glu	Ala	Thr	Lys	Ser
	210					215					220				
Ser	Tyr	Leu	Asn	He	Val	Gly	Leu	Val	Gly	Ser	11e	Asp	Asn	Asp	Phe
225					230					235					240
Cys	Gly	Thr	Asp	Met	Thir	He	Gly	Thr	Asp	Ser	Ala	Leu	His	Arg	116
				245					250					255	
Met	Glu	He		Asp	Ala	He	Thr		Thr	Ala	Gln	Ser		Gln	Arg
			260					265					270		

Thr	Phe	Val 275	Leu	Glu	Val	Met	Gly 280	Arg	His	Cys	Gly	Tyr 285	Leu	Ala	Leu
Val	Thr 290	Ser	Leu	Ser	Cys	Gly 295	Ala	Asp	Trp	Val	Phe 300	11e	Pro	Glu	Cys
Pro 305	Pro	Asp	Asp	Asp	Trp 310	Glu	Glu	His	Leu	Cys 315	Arg	Arg	Leu	Ser	Glu 320
Thr	Arg	Thr	Arg	G1y 325	Ser	Arg	Leu	Asn	11e 330	He	He	Val	Ala	G1u 335	Gly
Ala	lle	Asp	Lys 340	Λsn	Gly	Lys	Pro	11e 345	Thr	Ser	Glu	Asp	11e 350	Lys	Asn
Leu	Val	Val 355	Lys	Arg	Leu	Gly	Tyr 360	Asp	Thr	Arg	Val	Thr 365	Va]	Leu	Gly
His	Val 370	Gln	Arg	Gly	Gly	Thr 375	Pro	Ser	Ala	Phe	Asp 380	Arg	He	Leu	Gly
Ser 385	Arg	Met	Gly	Val	Glu 390	Ala	Val	Met	Ala	Leu 395	Leu	Glu	Gly	Thr	Pro 400
Asp	Thr	Pro	Ala	Cys 405	Val	Val	Ser	Leu	Ser 410	Gly	Asn	Gln	Ala	Val 415	Arg
Leu	Pro	Leu	Met 420	Glu	Cys	Val	Gln	Val 425	Thr	Lys	Asp	Val	Thr 430	Lys	Ala
Met	Asp	Glu 435	Lys	Lys	Phe	Asp	Glu 440	Ala	Leu	Lys	Leu	Arg 445	Gly	Arg	Ser
Phe	Met 450	Asn	Λsn	Trp	Glu	Val 455	Tyr	Lys	Leu	Leu	Ala 460	His	Val	Arg	Pro
Pro 465	Val	Ser	Lys	Ser	Gly 470	Ser	His	Thr	Val	Ala 475	Val	Met	Asn	Val	Gly 480
Ala	Pro	Ala	Ala	Gly 485	Met	Asn	Ala	Ala	Val 490	Arg	Ser	Thr	Val	Arg 495	He
Gly	Leu	lle	61n 500	Gly	Asn	Arg	Val	Leu 505	Val	Va]	His	Asp	Gly 510	Phe	Glu
Gly	Leu	Ala 515	Lys	Gly	Gln	He	Glu 520	Glu	Ala	Gly	Trp	Ser 525	Tyr	Val	Gly
Gly	Trp 530	Thr	Gly	Gln	Gly	Gly 535	Ser	Lys	Leu	Gly	Thr 540	Lys	Arg	Thr	Leu
	Lys	Lys	Ser	Phe		Gln	He	Ser	Ala		Пе	Thr	Lys	Phe	
545					550					555					560

Ile	Gln	Gly	Leu		lle	He	Gly	Gly		Glu	Ala	Tyr	Thr		G1 y
				565					570					575	
Leu	Glu	Leu	Met	Glu	Gly	Arg	Lys	Gln	Phe	Λsp	Glu	Leu	Cys	He	Pro
			580					585					590		
Phe	Val	Val	lle	Pro	Ala	Thr	Val	Ser	Asn	Asn	Val	Pro	G1y	Ser	Asp
		595					600					605			
Phe	Ser	Val	Gly	Ala	Asp	Thr	Ala	Leu	Asn	Thr	He	Cys	Thr	Thr	Cys
	610					615					620				
Asp	Arg	lle	Lys	Gln	Ser	Ala	Ala	Gly	Thr	Lys	Arg	Arg	Val	Phe	11e
625					630					635					640
He	Glu	Thr	Met	Gly	Gly	Tyr	Cys	Gly	Tyr	Leu	Ala	Thr	Met	Ala	Gly
				645					650					655	
Leu	Ala	Ala	Gly	Ala	Asp	Ala	Ala	Tyr	Пе	Phe	G]u	Glu	Pro	Phe	Thr
			660					665					670		
He	Arg	Asp	Leu	Gln	Ala	Asn	Val	Glu	His	Leu	Val	Gln	Lys	Met	Lys
		675					680					685			
Thr	Thr	Val	Lys	Arg	Gly	Leu	Val	Leu	Arg	Asn	Glu	Lys	Cys	Asn	Glu
	690					695					700				
Asn	Tyr	Thr	Thr	Asp	Phe	lle	Phe	Asn	Leu	Tyr	Ser	Glu	Glu	Gly	Lys
705					710					715					720
Gly	He	Phe	Asp	Ser	Arg	Lys	Asn	Val	Leu	Gly	His	Met	Gln	Gln	Gly
				725					730					735	
Gly	Ser	Pro	Thr	Ser	Phe	Asp	Arg	Asn	Phe	Ala	Thr	Lys	Met	Gly	Ala
			740					745					750		
Lys	Ala	Met	Asn	Trp	Met	Ser	Gly	Lys	Пе	Lys	Glu	Ser	Tyr	Arg	Asn
		755					760					765			
Gly	Arg	He	Phe	Ala	Asn	Thr	Pro	Asp	Ser	Gly	Cys	Val	Leu	Gly	Met
	770					775					780				
Arg	Lys	Arg	Ala	Leu	Val	Phe	G1n	Pro	Val	Ala	G1u	Leu	Lys	Asp	G1n
785					790					795					800
Thr	Asp	Phe	Glu	His	Arg	He	Pro	Lys	Glu	Gln	Trp	Trp	Leu	Lys	Leu
				805					810					815	
Arg	Pro	He	Leu	Lys	He	Leu	Ala	Lys	Tyr	Glu	Пе	Asp	Leu	Asp	Thr
			820					825					830		
Ser	Asp	His	Ala	His	Leu	Glu	His	He	Thr	Arg	Lys	Arg	Ser	Gly	GIu
		835					840					845			

Ala Ala Val 850 <210> 4111 <211> 112 <212> PRT <213> Homo sapiens <400> 4111 Met Asp Asn Ser Val Arg Val Tyr Pro Glu Thr Leu Gln Glu Thr Phe 10 Thr Glu Ala Pro Gly Phe Phe Thr Ser Ala Pro Asp Cys Thr Ser Trp 20 25 30 Thr Trp Ala Trp Val Pro Val Glu Arg Thr Glu Glu Trp Met Arg His 35 40 45 His Leu Thr Gly Pro Ser Pro Leu Ile Ser Pro Gly Thr Gln Asp Ser 55. Leu Ala Cys Ser Cys Cys His Gln Glu Glu Asp Pro Pro Gly Ala Val 70 65 80 His Gly Glu Val Leu Arg Ser Gly Gly Phe Cys Arg Gly Gly Met Trp 90 Leu Leu Cys Asp Gly Leu Trp Ala Arg Lys Asp Leu Tyr Leu Pro Arg 100 105 110 <210> 4112 <211> 196 <212> PRT <213> Homo sapiens

Met Pro Glu Ala Val Asp Val Asp Glu Ser Gln Leu Glu Asn Val Cys

1 5 10 15

Leu Ser Trp Gln Asn Glu Thr Ser Ser Gly Asn Leu Glu Ser Cys Ala
20 25 30

<400> 4112

Gln Ala Arg Arg Val Thr Gly Gly Leu Leu Asp Arg Leu Asp Asp Ser Pro Asp Gln Cys Arg Asp Ser lle Thr Ser Tyr Leu Lys Gly Glu Ala 50 55 Gly Lys Phe Glu Ala Asn Gly Ser His Thr Glu 11e Thr Pro Glu Ala 75 Lys Thr Lys Ser Tyr Phe Pro Glu Ser Gln Asn Asp Val Gly Lys Gln 90 Ser Thr Lys Glu Thr Leu Lys Pro Lys 11e His Gly Ser Gly His Val 100 105 Glu Glu Pro Ala Ser Pro Leu Ala Ala Tyr Gln Lys Ser Leu Glu Glu 120 Thr Ser Lys Leu Ile Ile Glu Glu Thr Lys Pro Cys Val Pro Val Ser 130 135 140 Met Lys Lys Met Ser Arg Thr Ser Pro Ala Asp Gly Lys Pro Arg Leu 150 155 Ser Leu His Glu Glu Glu Gly Ser Ser Gly Ser Glu Gln Lys Gln Gly 165 170 Glu Gly Phe Lys Val Lys Thr Lys Lys Glu Ile Arg His Val Glu Lys 180 185 190 Lys Ser His Ser 195

<210> 4113

<211> 111

<212> PRT

<213> Homo sapiens

<400> 4113

Met Ser Met Pro Ala Ser Thr Ser Ser His Ile Val Asn Phe Ser Phe 1 $$ 5 $$ 5 $$ 10 $$ 15 $$ Tyr Lys Ser Cys Cys Gln Gln Ile Gly Leu Phe Leu Lys Pro Leu Ile 20 $$ 25 $$ 30 $$ Tyr Ile Phe Leu Phe Leu Phe Glu Phe Ser Cys Ser Cys Gly Trp Leu 35 $$ 45

 Val
 Gly
 Pro
 Asp
 Asp
 Gly
 Thr
 Gly
 Ala
 Ala
 Pro
 Met
 His
 Cys
 Leu
 Leu
 Leu
 Leu
 Leu
 Leu
 Leu
 Leu
 Phe
 Leu
 Phe
 P

<210> 4114

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4114

Met Asn 11e Ser Val Lys Ala Val Pro Leu Gly Leu Thr Arg Asp Leu

1 5 10 15

Ile Ser Val Leu Cys Val Leu Ala Thr Ser Arg Val Arg Ile Ser Ala
20 25 30

Cys Pro Thr Ala Met Arg Asp Thr Thr Ala Thr Leu Gly Leu Ser Gly
35 40 45

Glu Ser Val Thr Glu Leu His Gln Asp Gly Ala Leu Pro His Pro Ser 50 55 60

Ala Cys Gln His Cys Ser Ser Lys Glu Pro Asp Val Thr Cys His Ser 65 70 75 80

Arg Val Gly Val Ile Leu Trp Val Ser Ser Trp Val Ala Pro Val Arg 85 90 95

Ala Val Pro Thr Thr Pro Thr Ala Pro Glu Ser Gly Gly Trp His Gln 100 105 110

Gly Cys Leu Thr Ser Ala Pro Gln Cys Phe Ser Leu Trp Leu 115 120 125

<210> 4115

<211> 106

<212> PRT <213> Homo sapiens <400> 4115 Met Lys Thr Glu Leu Pro Val Gln Lys Gly Ser Arg Leu Pro Pro Pro 5 10 Pro Pro Pro Cys Thr Ser Cys Pro Leu Pro Val His Ser Trp Asn Gln 20 25 Pro Gly Gln Ala Thr Ser Gly Pro Gln Arg Gln Ala Gly Ser Ser Gly 35 40 45 Pro Ser Arg Gly Arg Leu Glu Gly Leu Ala Asp Arg Phe Pro His Pro Pro Pro Pro Val Gln Val Phe Ala Ala Val Pro Arg Pro Pro Val Thr 70 65 75 80 Pro Arg Gln 11e Thr Gly His Gln Ala Arg Asp Ser Leu Leu Phe Val 85 90 95 Leu Ser Gly Leu Trp Leu Val Ser Phe Ser 100 105 <210> 4116 <211> 213 <212> PRT <213> Homo sapiens <400> 4116 Met Leu Val Gly Cys Met Tyr Val Phe Phe Arg Lys Val Ser Val Arg 10 5 His Leu Ser Lys Glu Asp Ile Tyr Ala Ala Lys Lys His Met Lys Lys 25 Cys Ser Ala Ser Leu Ala Ile Arg Glu Met Gln Ile Lys Thr Thr Met 40 Arg Cys His Leu Thr Pro Val Arg Met Ala Ile Ile Arg Lys Ser Gly 50 55

Asn Asn Arg Cys Trp Arg Gly Cys Gly Glu lle Gly Thr Leu Leu His

70

65

60

75

```
Cys Cys Trp Asp Cys Lys Leu Val Gln Pro Leu Trp Lys Ser Val Trp
                                      90
Gln Phe Leu Arg Asp Leu Glu Leu Glu Ile Pro Phe Asp Pro Ala Ile
            100
                                 105
                                                     110
Pro Leu Leu Gly 11e Tyr Pro Lys Asp Tyr Lys Ser Cys Cys Tyr Lys
                            120
        115
                                                 125
Asp Thr Cys Thr Cys Met Phe lle Ala Ala Leu Phe Thr lle Ala Lys
                        135
                                             140
Thr Trp Asn Pro Pro Lys Arg Pro Thr Met Ile Asp Trp Ile Lys Lys
145
                    150
                                         155
                                                             160
Met Cys His Ile Tyr Thr Met Glu Tyr Tyr Ala Ala Ile Lys Asn Asp
                                     170
Glu Phe Thr Ser Phe Val Gly Thr Trp Met Lys Leu Glu 11e 11e 11e
            180
                                185
                                                     190
Leu Ser Lys Leu Ser Gln Glu Gln Lys Thr Lys His His Ile Phe Ser
        195
                            200
                                                 205
Leu lle Gly Gly Asn
    210
```

<210> 4117

<211> 137

<212> PRT

<213> Homo sapiens

<400> 4117

Met Leu His Lys Asp Ala Leu Cys Ala Arg Arg Arg His Cys Gln Leu

1 5 10 15

Cys Gly Gly Asp Arg Ser Glu Thr Val Ser Leu Glu Asp Leu Leu Gly

20 25 30

Gln Glu Gly Val Ser Asp Glu Ala Gln Gly Arg Leu Gly Arg Ser Val
35 40 45

Gly Phe Gly Ala Gly 11e Ser Glu Phe Trp Pro Val Pro Leu Pro Pro 50 55 60

Pro Val Gln Val Ala Gln Ala Gln Ser Pro Thr Ser Ala Arg Ala Pro 65 70 75 80

<210> 4118

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4118

Met Ile Trp Arg Lys Leu Lys Cys Leu Leu Trp Leu Gln Arg Ser Glu

1 5 10 15

Gly Thr Leu His Ser Trp Leu Asp Arg Leu Asn Ser Gly Ile Gly Glu 20 25 30

Val Val Gly Glu Trp Arg Gly Ala Glu Gly Thr Asp Thr Gly Arg Asp
35 40 45

11e Ser Lys Asp Cys Gln Gln Gly Met Met 11e Thr Gln Gly Glu Gln 50 55 60

Val Gln Pro Val Ser Trp Cys Cys Pro Glu Leu Met Thr Ala lle Lys 65 70 75 80

Leu Pro Asp Phe Thr Ala Cys Ser Ala Leu Cys Pro Pro Gly 11e Leu 85 90 95

Gly Thr Phe Ser Arg Leu Gly Pro Gln Gly Arg Leu Glu Ala Ala His 100 105 110

Ser Leu His Cys Gln Ala Leu Ala Gly Gln Trp Ser Trp Gly Glu Gly 115 120 125

Gly

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<210> 4119
<211> 325
<212> PRT
<213> Homo sapiens
<400> 4119
Met Leu Leu Phe Ser Leu Trp Tyr Pro Leu Leu Cys Lys Leu Leu
                 5
                                    10
Leu Thr Lys Ile Asn Trp Arg Lys Lys Arg Lys Lys Lys Glu Glu
             20
                                 25
Lys Lys Arg Glu Lys Glu Pro Glu Lys Pro Ala Lys Pro Leu Thr Ala
Glu Lys Leu Gln Lys Lys Asp Gln Gln Leu Glu Pro Lys Lys Ser Thr
     50
                         55
                                             60
Ser Pro Lys Lys Ala Ala Glu Pro Thr Val Asp Leu Leu Gly Leu Asp
65
                     70
                                         75
Gly Pro Ala Val Ala Pro Val Thr Asn Gly Asn Thr Thr Val Pro Pro
                85
                                     90
Leu Asn Asp Asp Leu Asp Ile Phe Gly Pro Met Ile Ser Asn Pro Leu
                                105
            100
                                                    110
Pro Ala Thr Val Met Pro Pro Ala Gln Ala Thr Pro Ser Ala Pro Ala
Ala Ala Thr Leu Ser Thr Val Thr Ser Gly Asp Leu Asp Leu Phe Thr
    130
                        135
                                            140
Glu Gln Thr Thr Lys Ser Glu Glu Val Ala Lys Lys Gln Leu Ser Lys
145
                    150
                                        155
                                                             160
Asp Ser Ile Leu Ser Leu Tyr Gly Thr Gly Thr lle Gln Gln Gln Ser
                165
                                    170
Thr Pro Gly Val Phe Met Gly Pro Thr Asn Ile Pro Phe Thr Ser Gln
            180
                                185
                                                     190
Ala Pro Ala Ala Phe Gln Gly Phe Pro Ser Met Gly Val Pro Val Pro
                            200
                                                205
Ala Ala Pro Gly Leu lle Gly Asn Val Met Gly Gln Ser Pro Ser Met
    210
                        215
                                            220
Met Val Gly Met Pro Met Pro Asn Gly Phe Met Gly Asn Ala Gln Thr
```

Gly Val Met Pro Leu Pro Gln Asn Val Val Gly Pro Gln Gly Gly Met 250 245 Val Gly Gln Met Gly Ala Pro Gln Ser Lys Phe Gly Leu Pro Gln Ala 260 265 270 Gln Gln Pro Gln Trp Ser Leu Ser Gln Met Asn Gln Gln Met Ala Gly 280 285 Met Ser Ile Ser Ser Ala Thr Pro Thr Ala Gly Phe Gly Gln Pro Ser 295 300 Ser Thr Thr Ala Gly Trp Ser Gly Ser Ser Ser Gly Gln Thr Leu Ser 305 310 315 320 Thr Gln Leu Trp Lys 325

<210> 4120

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4120

 Met
 Pro
 Gly
 Ser
 Cys
 Ala
 Glu
 Met
 Arg
 Thr
 Cys
 1le
 Leu
 Ala
 Gly
 His

 1
 5
 5
 40
 Met
 Asp
 Phe
 Val
 Lys
 Lys
 Thr
 Gly
 1le

 Gly
 Gly
 Ser
 Leu
 Ser
 Asn
 Leu
 Met
 Asp
 Phe
 Val
 Lys
 Lys
 Thr
 Gly
 1le

 Cys
 Ala
 Ser
 Lys
 Trp
 Glu
 Trp
 Gly
 Thr
 Thr
 His
 Asn
 Phe
 Leu
 Tyr
 Lys

 His
 Gly
 Gly
 1le
 Arg
 Asp
 Lys
 1le
 Met
 Ser
 Ser
 Arg
 Lys
 His
 Leu
 His

 50
 Leu
 Val
 Leu
 Ala
 Ile
 Asn
 Thr
 Pro
 Phe
 Pro
 Leu
 Val
 Leu

Leu Val Asp Ala Gly Leu Ala lle Asn Thr Pro Phe Pro Leu Val Leu 65 70 75 80

Pro Pro Thr Arg Glu Val His Leu lle Leu Ser Phe Asp Phe Ser Ala 85 90 95

Gly Asp Pro Phe Glu Thr Ile Arg Ala Thr Thr Asp Tyr Cys Arg Arg
100 105 110

His Lys Ile Pro Phe Pro Gln Val Glu Glu Ala Glu Leu Asp Leu Trp 115 120 125 Ser Lys Ala Pro Ala Ser Cys Tyr Ile Leu Lys Gly Glu Thr Gly Pro Val Val Met His Phe Pro Leu Phe Asn Ile Asp Ala Cys Gly Gly Asp lle Glu Ala Trp Ser Asp Thr Tyr Asp Thr Phe Lys Leu Ala Asp Thr Tyr Thr Leu Asp Val Val Leu Leu Leu Ala Leu Ala Lys Lys Asn Val Arg Glu Asn Lys Lys IIe Leu Arg Glu Leu Met Asn Val Ala Gly

<210> 4121

<211> 168

<212> PRT

<213> Homo sapiens

<400> 4121

Met Ala Asn Arg Asp Ser Ala Ser Pro His Ser Pro Pro Arg Arg Arg Arg Cys Leu Gly Gly Pro Thr Val Leu Pro Leu Arg Lys Ile His Ala Gly Cys Tyr Gly Pro Gln Pro Pro His Arg His Pro Arg Pro Leu His Thr Val Ser Leu Pro Ser Pro Asn Thr Leu Leu Pro Gln Pro Gly Asp Pro Trp Met Glu Asp Trp Ala Ser Gln Ser Gly Arg Gln Asp Gln Arg Val Cys Glu His Thr Cys Val Pro Ala Asp Met Pro Gln Asp Pro Arg Asp Ala Pro Ala Pro Val Thr Trp Cys Gln Ser Tyr Leu Gly Asn Trp Pro Phe Trp Phe Arg Val Asn Trp Glu Val Lys Pro Leu Gly Phe Val

<210> 4122

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4122

Met Asn Pro Gln Ala Trp Thr Gly Ala Pro Glu Glu Ala His Thr Leu 1 5 10 15

Leu Leu Ser Leu Leu Leu 11e Phe Ser Val Trp Leu His Leu Cys His
20 25 30

Ser Cys Cys Thr Asp Leu Cys Met Pro Gly Lys Ala Lys Leu Ala Gln 35 40 45

Lys Ala Thr Gly His Leu Cys Lys Val Val Pro Gly Ala Gly Gly Pro 50 55 60

Ala Thr Asn Leu Thr Cys Cys Arg Ser Ala Tyr lle Ser Ser Ser Thr 65 70 75 80

Leu Glu Val Gly Pro Gln Cys His Met Leu Phe Leu Arg Pro Leu Leu 85 90 95

Tyr Gln Ser Ser Gly Ser Asn His Ser Gly Cys Gly Asn Leu Ala 11e 100 105 110

Pro Pro Ser Leu Ser Ser

115

<210> 4123

<211> 104

<212> PRT

<213> Homo sapiens

<400> 4123 Met Val Leu Cys His Arg Gly Phe Tyr Tyr Tyr Asn Ile Lys Leu Glu 10 Val Val Leu Val Pro Gly Val Cys Ser Glu Phe Pro Glu Glu Arg Glu 25 Gly Gln Gly Leu Asn Gly Met Gln Asp Asn Trp Asn Ala Pro Ile Ser 40 Leu Ala Asp Thr Asp Pro Val Ile Pro Gly Ala Gly Arg Asp Leu Glu 50 55 60 Ala Leu Val 11e Cys Arg Val Asn Gly Glu Gly Arg Gly Lys Gly Leu 70 75 Leu Gly Gly Lys Thr Gly Cys Arg Gly Glu Ala Glu Gly Gly Gly Ala 85 90 95 Glu Ala Ala Gly Leu Cys Leu Trp 100 <210> 4124 <211> 138 <212> PRT <213> Homo sapiens <400> 4124

Met Pro Asp Cys Arg Arg Tyr Gln Gln Pro Val Glu Lys Leu His Gln Cys Trp Gly Ser Tyr Phe Asn Tyr Ser Arg Lys Ile His Phe Leu Leu 25 Ser Val Trp Phe His Leu Gly Leu Thr Ser Phe Leu Ala Gly Pro Arg 35 40 45 Phe Val Lys Ser lle Leu Ile Ser Arg lle Ile Leu Ala Asn Ser Leu 55 Pro Arg Phe Ser Phe Pro Ser Phe Gly Gln Leu Ala Trp Phe Val Leu 65 70 75 Leu lle Ser Glu Met Arg Cys Asp Asn Lys Arg Gln Arg Asn Lys Ser 85 90 95

<210> 4125

<211> 234

<212> PRT

<213> Homo sapiens

<400> 4125

 Met Gln Gly Ser Arg Arg Arg Arg Arg Arg Dys Arg Met Tyr Ala Thr Ala Thr Gly

 1
 5
 10
 15

 Pro Gly Phe Ser Gly Leu Pro Trp Ala Val His His Pro Leu His Ser
 20
 25
 30

 Pro Ser His Cys Tyr Pro Thr Ser Ala Val Arg Ser Pro Arg Ala His
 35
 40
 45

 Ser Ala Gln Pro Pro Ser Ser Val Pro Ser Gly Pro Phe Thr Pro Cys
 50
 55
 60

 Asp Asn Ser Arg Cys Cys Leu Gly Ser Trp Gly Thr Pro Asp Pro Ser

70 75 80 Ser His Gly 11e Ser Ser Arg His Ala Gly Gln Ala Gly Pro Met Ala 85 90 95

Leu His Leu Ser Pro Ala Ala Trp Gly Cys Pro Val Gly Ala Asp Thr 100 105 110

Thr Ser Leu Pro Phe Gly Pro Leu Pro Arg Thr His Cys Met Pro Gly
115 120 125

Trp Gly Asp Gly Gly Arg Glu Lys Ser Gly Arg Phe Pro Ser Trp Arg 130 135 140

Gly Ser Ala Arg Ala Gly Arg Cys Pro Gly Met Thr lle Pro Asp Ser 145 150 155 160

Gln Asn His Leu Pro Ala Val Gly Trp Gly Ser Pro Gln Arg Ala His 165 170 175

 Pro
 Tyr
 Ser
 Gln
 Ser
 Arg
 Asp
 Glu
 Gly
 Ser
 Cys
 Gly
 Pro
 Arg
 Arg
 Typ

 Ala
 Lys
 Arg
 Arg
 Thr
 Gly
 Ser
 Trp
 Met
 Gln
 Ser
 Gly
 Val
 Ser
 Gly
 Ala

 Pro
 Gly
 Gln
 Arg
 His
 Arg
 Ala
 Tyr
 Trp
 Gly
 Gln
 Gly
 Trp
 Gly
 Gln
 Gly
 Gly
 Gly
 Trp
 Gly
 Gly
 Arg
 Ser
 Inch
 <210> 4126

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4126

Met Glu Pro Arg Ser Gly Gly Leu Arg Ser His Lys Ala Tyr Ala Cys

1 5 10 15

Ile Phe Leu Arg Glu Pro Thr Glu Glu Arg Glu Met Ala Lys Thr Arg
20 25 30

Arg Asp Arg Trp Met Thr Thr Ser Ala Gly Gln Lys Thr Thr Leu Ile
35 40 45

Ala Phe Met Arg Met Thr Ala Ser Pro Ser Gln Lys Ala Thr Leu lle 50 55 60

Ala Ser Met Arg Met Thr Ala Ser Pro Gly Gln Lys Thr Thr Leu lle 65 70 75 80

Ala Ser Met Ser Ser Pro Trp Gly 11e His Gly Glu Asp 11e Phe Glu 85 90 95

Gly Glu Ile Pro Asn Ala Ser 100

<210> 4127

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4127 Met Arg Pro Ser Met 11e Trp Val Leu Ser Ala Ser Pro Ala Ser Pro Asp Val Pro Gly Gly Ser Ala Leu Val Asn Pro Cys Ser Leu Leu Ala Thr Arg Cys Ser Leu Arg Pro Leu Pro Thr Thr Gln Asn Ala lle Tyr Leu Leu Pro Ser Thr Leu Pro Pro Cys Pro Arg Pro Ile Pro Ile Pro Gln Leu Thr Ser Cys Pro Phe Ile Lys Ile Ala Leu Ala Met Pro Ser Gln Glu lle Ser Asn Pro Tyr Gly Leu Leu Gly Ala Pro Leu Leu Glu Ala Ala Lys Asp Thr Asp Leu Phe Ser Arg Cys Ala Trp lle

<210> 4128

<211> 104

<212> PRT

<213> Homo sapiens

<400> 4128

Met Leu Pro Asn Tyr Met Lys Gln Thr lle Tyr Gly His Asn Thr Thr

lle Phe Asn Glu His Leu Tyr Ile Leu Tyr Ala Thr Val Leu Ser Leu

Cys Leu Pro Cys Ala Lys Ser Thr Val Phe Asn Asp Leu Lys Leu Thr

Phe Ala Asn Asn Ser Lys Tyr Arg Trp Ser Ser Ser Ser Lys Thr Thr

Lys Gly Ser Phe Leu Ser Met Val Ile Phe Ser Pro Phe Lys Leu Ile

Leu Tyr Lys Gln Asp Phe Lys Ser Lys Ser His Phe Phe Arg Cys Arg

His Pro Cys Gly Trp Glu Arg 11e

<210> 4129

<211> 132

<212> PRT

<213> Homo sapiens

<400> 4129

Met Pro Ser Arg Cys Pro Gly Pro His Pro Ser Ala Arg His Pro Pro

1 5 10 15

Ser Gly Leu Pro Gly Leu Leu Gly Ser Pro Val Phe Pro Asp Arg Gln
20 25 30

Gly Leu Asp Val Pro Ser Gln Pro Ala Pro Gly Pro Thr Cys Arg Ser 35 40 45

Tyr Pro Asn Ala Leu Arg Ser Pro Ala Leu Pro Leu Cys Phe His Pro 50 55 60

Pro Ser Phe Leu Met Val Phe Phe Leu Pro His Cys Leu Ser Leu Cys 65 70 75 80

Leu Ser Val Leu Ser Val Pro Ser Pro Pro Val Ser Pro Ser Ala Leu 85 90 95

Tyr Gly Pro Leu Val Ser Leu Ser Thr Ser Leu Tyr His His Val 11e 100 105 110

Ser Val Ser Leu Ser Val Ser lle Ser Pro Cys Leu Cys Leu Cys 115 120 125

Leu Ile Phe Leu

130

<210> 4130

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4130

Met Asn Lys Ile Arg Leu Ser Leu Lys Arg Asn Tyr Lys Lys Glu Leu Arg Pro Gly Val Met Ala His Ala Gly Asn Pro Ser Thr Leu Gly Gly Gln Gly Ser Trp Ile Met Arg Ser Gly Val Arg Asp Gln Pro Gly Gln His Gly Glu Thr Ser Ser Leu Leu Lys Ile Gln Glu Leu Ala Gly Cys Gly Gly Met Pro Val Phe Pro Ala Thr Gln Glu Gly Lys Ala Gly Glu Ser Leu Glu Pro Arg Arg Trp Arg Leu Gln Cys Thr Gln Ile Ala Pro Leu His Ser Ser Leu Gly Asp Arg Ala Arg Leu Leu Glu Lys Lys Gly Ala Glu Met Lys Phe <210> 4131 <211> 143 <212> PRT <213> Homo sapiens

<400> 4131

Met Met Pro Gly Met Ala Thr Leu Met Ala Asp Ser Met Cys Asp Asp Ser Tyr Ser Ser Cys Gly Arg Gln Ser Ile Ser Ser Ser Arg Ser Leu Pro Ser Ser Cys Ser Leu Ser His Ala Thr Val Leu Leu lle Ala lle Ser Asp Ala Lys Gly Thr Gly Leu Ser Val Ser Ile Met Gly Val Glu Leu Arg Glu Arg Ala Gly Cys Leu Pro Asp Ala Pro Arg Gly Arg His Arg Pro Ser Ala Pro Arg Ala Lys Leu Pro Leu Ser Glu Arg Gly

Leu IIe Pro Pro Arg Leu Thr Gln Ala Glu Ala Ser Gly Trp Gly Arg

100 105 105 110

Arg Asp Arg Ser Lys Ala Gly Gly Ser Leu Cys Thr Gln Leu Gln Pro
115 120 120 125

Leu Ala Leu Ser Val Asn Glu Ser Leu Ser Met Lys Leu Pro Arg
130 135 140

<210> 4132

<211> 140

<212> PRT

<213> Homo sapiens

<400> 4132

Met Glu Ala Ser Pro Tyr Leu Glu Gly Pro Leu Ser Gly Arg Pro Cys

1 5 10 15

Trp Leu His Arg Gly Gly Ser Glu Asp Asn Pro Ser Leu Gly Gly Ala 20 25 30

His His Cys Cys Leu Gly His Ser Gln Glu Cys Tyr Ser Arg Pro Thr 35 40 45

Ala Gly His Leu Ala Gly Thr Gly Ser Pro Arg Ile Trp Pro Arg Trp 50 55 60

Gly Arg Val Pro Pro Arg Ser Phe Ser Leu Ser Ser Ala Ser Val Pro 65 70 75 80

Ser Pro His Leu Cys Thr Arg 11e Thr Ala Ser Arg Glu Arg Met 85 90 95

Ala Leu Arg Leu Gly Phe Cys Phe Gln Pro Ser Ser Glu Arg Gly Ser 100 105 110

Thr Tyr Arg Lys Gln Tyr Ile Ser His Gln Ser Leu Arg Asp Pro Gln
115 120 125

Ala Gln Leu Thr Pro Thr Pro Gly Ala Pro Ala Phe 130 135 140

<210> 4133

<211> 208

<212> PRT <213> Homo sapiens

<400> 4133

Met Gly Ser Cys Ser Gly Arg Cys Ala Leu Val Val Leu Cys Ala Phe
1 5 10 15
Gln Leu Val Ala Ala Leu Glu Arg Gln Val Phe Asp Phe Leu Gly Tyr

Gln Leu Val Ala Ala Leu Glu Arg Gln Val Phe Asp Phe Leu Gly Tyr 20 25 30

Gln Trp Ala Pro Ile Leu Ala As
n Phe Val His Ile Ile Ile Val Ile 35
 40
 45

Leu Gly Leu Phe Gly Thr Ile Gln Tyr Arg Leu Arg Tyr Val Met Val

50 55 60

Tyr Thr Leu Trp Ala Ala Val Trp Val Thr Trp Asn Val Phe lle lle 65 70 75 80

Cys Phe Tyr Leu Glu Val Gly Gly Leu Leu Gln Asp Ser Glu Leu Leu 85 90 95

Thr Phe Ser Leu Ser Arg His Arg Ser Trp Trp Arg Glu Arg Trp Pro
100 105 110

Gly Cys Leu His Glu Glu Val Pro Ala Val Gly Leu Gly Ala Pro His 115 120 125

Gly Gln Ala Leu Val Ser Gly Ala Gly Cys Ala Leu Glu Pro Ser Tyr 130 135 140

Val Glu Ala Leu His Ser Gly Leu Gln IIe Leu IIe Ala Leu Leu Gly 145 150 155 160

Phe Val Cys Gly Cys Gln Val Val Ser Val Phe Thr Glu Glu Glu Asp 165 170 175

Ser Phe Asp Phe Ile Gly Gly Phe Asp Pro Phe Pro Leu Tyr His Val 180 185 190

Asn Glu Lys Pro Ser Ser Leu Leu Ser Lys Gln Val Tyr Leu Pro Ala 195 200 205

<210> 4134

<211> 159

<212> PRT

<213> Homo sapiens

<400> 4134

Met Cys Val Arg Arg Ser Leu Val Gly Leu Thr Phe Cys Thr Cys Tyr 1 5 10 Leu Ala Ser Tyr Leu Thr Asn Lys Tyr Val Leu Ser Val Leu Lys Phe 25 Thr Tyr Pro Thr Leu Phe Gln Gly Trp Gln Thr Leu 11e Gly Gly Leu 45 Leu Leu His Val Ser Trp Lys Leu Gly Trp Val Glu lle Asn Ser Ser Ser Arg Ser His Val Leu Val Trp Leu Pro Ala Ser Val Leu Phe Val 70 75 Gly Ile 11e Tyr Ala Gly Ser Arg Ala Leu Ser Arg Leu Ala 11e Pro 85 90 95 Val Phe Leu Thr Leu His Asn Val Ala Glu Val Ile Ile Cys Gly Tyr 105 Gln Lys Cys Phe Gln Lys Glu Lys Thr Ser Pro Ala Lys Ile Cys Ser 115 120 125 Ala Leu Phe Leu Leu Ala Ala Ala Gly Cys Leu Pro Phe Asn Asp Ser

135

150

Gln Gly Leu Ile Lys Phe Tyr Arg Ser Pro Arg Asn Pro Val His

155

<210> 4135

145

<211> 942

<212> PRT

<213> Homo sapiens

<400> 4135

Met Glu Arg Leu Leu Arg Arg Ile Asn Arg Thr Val Ile Gly Met Asn

1 5 10 15

Arg Gln Ser Pro His Ile Gly Ser Phe Val Ala Cys Met Ile Ala Leu

20 25 30

Leu Gln Gln Met Asp Asp Ser His Tyr Ser His Tyr Ile Ser Thr Phe

		35					40					45			
Lys	Thr	Arg	G1n	Asp	He	lle	Asp	Phe	Leu	Leu	Glu	Thr	Phe	He	Met
	50					55					60				
Phe	Lys	Asp	Leu	He	Gly	Lys	Asn	Val	Tyr	Лlа	Lys	Asp	Trp	Met	Val
65					70					75					80
Met	Asn	Met	Thr	G1n	Asn	Arg	Val	Phe	Leu	Arg	Ala	lle	Asn	Gln	Phe
				85					90					95	
Ala	Glu	Val	Leu	Thr	Arg	Phe	Phe	Met	Asp	Gln	Ala	Ser	Phe	Glu	Leu
			100					105					110		
Gln	Leu		Asn	Asn	Tyr	Phe		Leu	Ala	Val	Ala		Leu	Thr	His
	_	115		_			120					125			
Glu		Leu	Gln	Leu	Glu		Phe	Ser	GIn	Ala		Arg	Asn	Lys	He
17. 1	130	1	T	61		135	4		C1	7.1	140	DI		3.1	٨
	Lys	Lys	Tyr	G1 y		Met	Arg	Lys	61u		61 y	Phe	Arg	116	
145	Mot	Twn	Tyr	Aan	150	C1 ₁₁	Dro	Uic	Lve	155	Lve	Dho	110	Dro	160 Sor
nsp	Met	пр	1 y 1	165	Leu	Gly	110	HIS	170	116	LyS	THE	116	175	261
Met	Val	Glv	Pro		len	Glu	Val	Thr		Thr	Pro	Glu	Val		Leu
sic c	, 01	Gly	180	110	Leu	oru	, 41	185	Leu	1111	110	ora	190	oru	LCG
Arg	Lvs	Ala	Thr	Ile	Pro	Ile	Phe		Asp	Met	Met	G1n		Glu	Phe
Ŭ	-	195					200		•			205	·		
Asn	Phe	Ser	Gly	Asn	Gly	Asn	Phe	His	Met	Phe	Glu	Asn	Glu	Leu	He
	210					215					220				
Thr	Lys	Leu	Asp	Gln	Glu	Val	Glu	Glu	Gl y	Arg	Gly	Asp	Glu	Gln	Tyr
225					230					235					240
Lys	Val	Leu	Leu	Glu	Lys	Leu	Leu	Leu	Glu	His	Cys	Arg	Lys	His	Lys
				245					250					255	
Tyr	Leu	Ser	Ser	Ser	Gly	Glu	Va]	Phe	Ala	Leu	Leu	Val	Ser	Ser	Leu
			260					265					270		
Leu	Glu		Leu	Leu	Asp	Tyr	Arg	Thr	He	He	Met		Asp	Glu	Ser
		275					280					285			
Lys		Asn	Arg	Met	Ser		Thr	Val	Asn	Val		Asn	Phe	Tyr	Lys
0.1	290	,		0.1		295	Tr.			w.	300	æ		,	
	Lys	Lys	Arg	Glu		116	lyr	116	Arg		Leu	lyr	Lys	Leu	
305	Lov	Hic	A == ~	Acr	310 Cvc	61	Acr	Tur	Thr	315	۸1.	A1.c	Tur	The	320
ush	Leu	1112	mg	ush	\cup y S	OLU	11011	ı yı	1.11	OIU	MIG	nid	1 y 1	1111	Leu

				325					330					335	
Leu	Leu	His	Ala	Glu	Leu	Leu	Gln	Trp	Ser	Asp	Lys	Pro	Cys	Val	Pro
			340					345					350		
His	Leu	Leu	Gln	Arg	Asp	Ser	Tyr	Tyr	Val	Tyr	Thr	Gln	Gln	Glu	Leu
		355					360					365			
Lys	Glu	Lys	Leu	Tyr	G1n	Glu	He	He	Ser	Tyr	Phe	Asp	Lys	G1y	Lys
	370					375					380				
Met	Trp	Glu	Lys	Ala	lle	Lys	Leu	Ser	Lys	Glu	Leu	Ala	Glu	Thr	Tyr
385					390					395					400
Glu	Ser	Lys	Val	Phe	Asp	Tyr	Glu	Gly	Leu	Gly	Asn	Leu	Leu	Lys	Lys
				405					410					415	
Arg	Ala	Ser	Phe	Tyr	Glu	Asn	He	He	Lys	Ala	Met	Arg	Pro	Gln	Pro
			420					425					430		
G]u	Tyr	Phe	Ala	Val	Gly	Tyr	Tyr	Gly	Gln	G1 y	Phe	Pro	Ser	Phe	Leu
		435					440					445			
Arg		Lys	He	Phe	lle	Tyr	Arg	Gly	Lys	Glu	Tyr	Glu	Arg	Arg	Glu
	450					455					460				
	Phe	Ser	Leu	Arg		Leu	Thr	Gln	Phe		Asn	Ala	Glu	Lys	
465					470					475					480
Thr	Ser	Thr	Thr		Pro	Gly	Glu	Asp		Lys	Ser	Ser	Pro		Gln
ar.		0.1		485	m)		,	Б.	490				Б	495	
lyr	Met	GIn	Cys	Phe	Ihr	Val	Lys		Val	Met	Ser	Leu		Pro	Ser
т			500	n	V 1	D	C 1	505	7.1			T	510 T		4.7
ıyr	Lys		Lys	Pro	val	Pro		GIn	11e	Leu	Asn		lyr	Arg	Ala
Λ	C1	515 Val	C1	C1	DL _	۸	520	C	Λ	D	DI	525	1	C1	C1
ASII	530	vai	Gln	GIN	rne	535		ser	Arg	Pro	540		Lys	Gly	GIU
Lvc		Pro	Asp	Acn	Glu			The	Mot	Trn	0.0		Λιασ	Thr	Thr
545	ush	110	nsp	дэн	550	THE	ліа	1111	Met	555	116	oru	ni g	1111	560
	Thr	Thr	Ala	Tvr		Phe	Pro	Glv	Πρ		Lve	Trn	Phe	Glu	
1,1	1111	1111	ma	565	1111	1110	110	013	570	LCu	Lys	116	THE	575	101
Lvs	Gln	He	Ser		Glu	Glu	He	Ser		len	Glu	Asn	Ala		Glu
	~ 411		580		-10			585		u	JIG	11	590		J. U
Thr	Met	Glu	Leu	Thr	Asn	Glu	Arg		Ser	Asn	Cvs	Val		G1n	His
		595					600				- 3 -	605			
Ala	Trp		Arg	Ser	Leu	Ser		His	Pro	Leu	Ser		Leu	Leu	Ser

	610					615					620				
Gly	He	Val	Asp	Pro	Ala	Val	Met	Gly	Gly	Phe	Ser	Asn	Tyr	Glu	Lys
625					630					635					640
Ala	Phe	Phe	Thr	Glu	Lys	Tyr	Leu	Gln	Glu	His	Pro	Glu	Asp	Gln	Glu
				645					650					655	
Lys	Val	Glu	Leu	Leu	Lys	Arg	Leu	He	Ala	Leu	Gln	Met	Pro	Leu	Leu
			660					665					670		
Thr	Glu	Gly	Ile	Arg	lle	His	Gly	Glu	Lys	Leu	Thr	Glu	Gln	Leu	Lys
		675					680					685			
Pro	Leu	His	Glu	Arg	Leu	Ser	Ser	Cys	Phe	Arg	Glu	Leu	Lys	Glu	Lys
	690					695					700				
	Glu	Lys	His	Tyr		Val	He	Thr	Leu		Pro	Asn	Leu	Thr	
705		0.1	6		710	0.1		7.1		715		m			720
Arg	Lys	GIn	Ser		Thr	Gly	Ser	He		Leu	Pro	Tyr	He		Ser
C .	TI.			725	,	C	т 1	TI	730	W 1	Tì	C	C	735 V 1	17 7
ser	inr	Leu	Arg	Arg	Leu	Ser	11e		5er	vai	Inr	Ser		vai	vai
Sar	Thr	Sor	740	Acn	Sor	Sor	Aan	745	110	Dro	Sor	Ara	750 Pro	Cl _v	Son
361	1111	755	Ser	ASII	361	261	760	ASII	Ма	110	261	765	110	ОТУ	361
Asn	G1 v		He	Len	Glu	Pro		Leu	Glu	Aro	Aro		Ser	Ser	Glv
пор	770	501	110	Lea	014	775	Lea	Lea	oru	8	780	7110	001	501	01,
Ala		Val	Glu	Asp	Leu		Leu	Arg	Glu	Glu		Ser	Glu	Asn	Arg
785	Ü			•	790			Ü		795					800
He	Ser	Lys	Phe	Lys	Arg	Lys	Asp	Trp	Ser	Leu	Ser	Lys	Ser	Gln	Val
				805					810					815	
lle	Ala	Glu	Lys	Ala	Pro	Glu	Pro	Asp	Leu	Met	Ser	Pro	Thr	Arg	Lys
			820					825					830		
Ala	Gln	Arg	Pro	Lys	Ser	Leu	Gln	Leu	Met	Asp	Asn	Arg	Leu	Ser	Pro
		835					840					845			
Phe	His	Gly	Ser	Ser	Pro	Pro	Gln	Ser	Thr	Pro	Leu	Ser	Pro	Pro	Pro
	850					855					860				
Leu	Thr	Pro	Lys	Ala	Thr	Arg	Thr	Leu	Ser	Ser	Pro	Ser	Leu	Gln	Thr
865					870					875					880
Asp	Gly	Пе	Ala	Ala	Thr	Pro	Val	Pro	Pro	Pro	Pro	Pro	Pro	Lys	Ser
				885					890					895	

 Lys
 Pro
 Tyr
 G1u
 G1y
 Ser
 G1n
 Arg
 Ser
 Ser
 Thr
 G1u
 Leu
 Ala
 Pro
 Pro

 Leu
 Pro
 Val
 Arg
 Arg
 G1u
 Ala
 Lys
 Ala
 Pro
 Pro
 Pro
 Pro
 Pro
 Pro
 Pro
 Pro
 Pro
 Lys

 Ala
 Arg
 Lys
 Ser
 Gly
 Ile
 Pro
 Thr
 Ser
 Glu
 Pro
 Gly
 Ser
 Gln

 930
 935
 940
 940

<210> 4136

<211> 144

<212> PRT

<213> Homo sapiens

<400> 4136

Met Ala His Leu Arg Asp His Pro Phe Ser Asn Thr Arg Leu Pro Lys

1 5 10 15

Pro Trp His Arg Asp Gly Cys Leu Gly Trp Pro Arg Arg Asp Ser Arg
20 25 30

Ser Val Leu Cys Gly Asp Leu Leu Ser Ala Gl
n Lys Leu Val Leu Thr 35 40 45

Leu Pro Leu Thr Gly Val Trp Cys Phe Trp Ser Gly Leu Phe Leu Gln 50 55 60

Gly Cys Pro Ser Val Ser Val Pro Met Gly Val Cys Pro Ala Cys Ser 65 70 75 80

Tyr Arg Glu Gln Asp Cys Trp Ala Pro Gly Met Arg Ala Arg Gly Trp

85 90 95

Pro Asn Thr Glu Trp Leu Pro Ala Val IIe Leu Ser Val Leu Phe Pro 100 105 110

Pro Gln Ser Ser Trp Gln Glu Ser Val Leu Leu Ala Ala Phe Phe Val 115 120 125

Arg 11e Tyr Trp Asp Leu Phe Lys Val Pro Trp Gly Pro Arg Arg Leu 130 135 140

<210> 4137

<211> 112

<212> PRT <213> Homo sapiens <400> 4137 Met Leu Phe Phe Phe Phe Phe Phe Phe Glu Met Glu Ser Cys Phe 10 Val Ala Gln Ala Glu Val Gln Trp His Asp Leu Gly Ser Leu Leu Pro 25 Leu Pro Pro Gly Phe Lys Gln Phe Phe Cys Leu Ser Leu Pro Ser Ser 35 40 45 Trp Asp Cys Arg Cys Ala Pro Thr Cys Thr Thr Val Gln Ile Pro Gly 55 60 Cys Leu Phe Ser Gly Asp Gly Val Ser Pro Cys Trp Pro Gly Trp Ser 70 75 65 80 Arg Thr Pro Asp Leu Arg Trp Ser Thr Cys Phe Ser Leu Pro Gly Cys 90 Trp Asn Cys Arg Cys Glu Pro Pro Cys Gln Thr Asp Ala Phe Tyr Val 100 105 110 <210> 4138 <211> 531 <212> PRT <213> Homo sapiens <400> 4138 Met Leu Lys Leu 11e Pro Pro His Ala Arg Glu Ala Gly Thr Arg Gly 10 Gly Thr Asp Thr Ala Gly Glu Pro Thr Pro Glu Val Arg Pro Gly Asp 20 25 30 Val His Ser His Ile Pro Lys Ala His Gly Met Arg Ser Ala Trp Val Thr Leu Gly Leu Cys Pro Pro Arg Gln Glu Pro Ala Leu Cys Thr Leu 50 55

Cys Ala Cys Pro Ser Gly Arg Pro Ser Met Arg Gly Pro Ala Val Leu

75

80

70

Leu	Thr	Val	Ala	Leu 85	Ala	Thr	Leu	Leu	Ala 90	Pro	Gly	Ala	Gly	Ala 95	Pro
Val	Gln	Ser		Gly	Ser	Gln	Asn		Leu	Leu	Leu	Val		Phe	Asp
			100					105					110		
Gly	Phe	Arg	Trp	Asn	Tyr	Asp		Asp	Val	Asp	Thr		Asn	Leu	Asp
		115					120					125			
Ala	Met 130	Ala	Arg	Asp	G1 y	Val 135	Lys	Ala	Arg	Tyr	Met 140	Thr	Pro	Ala	Phe
Val	Thr	Met	Thr	Ser	Pro	Cys	His	Phe	Thr	Leu	Val	Thr	Gly	Lys	Tyr
145					150					155					160
He	Glu	Asn	His	Gly	Val	Val	His	Asn	Met	Tyr	Tyr	Asn	Thr	Thr	Ser
				165					170					175	
Lys	Val	Lys	Leu	Pro	Tyr	His	Ala	Thr	Leu	Gly	He	Gln	Arg	Trp	Trp
			180					185					190		
Asp	Asn	Gly	Ser	Val	Pro	He	Trp	He	Thr	Ala	Gln	Arg	Gln	Gly	Leu
		195					200					205			
Arg	Ala	Gly	Ser	Phe	Phe	Tyr	Pro	Gly	Gly	Asn	Val	Thr	Tyr	Gln	Gly
	210					215					220				
Val	Ala	Val	Thr	Arg	Ser	Arg	Lys	Glu	Gly	lle	Ala	His	Asn	Tyr	Lys
225					230					235					240
Asn	Glu	Thr	Glu	Trp	Arg	Ala	Asn	He	Asp	Thr	Val	Met	Ala	Trp	Phe
				245					250					255	
Thr	Glu	Glu	Asp	Leu	Asp	Leu	Val	Thr	Leu	Tyr	Phe	Gly	Glu	Pro	Asp
			260					265					270		
Ser	Thr	Gly	His	Arg	Tyr	Gly	Pro	Glu	Ser	Pro	Glu	Arg	Arg	Glu	Met
		275					280					285			
Val	Arg	Gln	Val	Asp	Arg	Thr	Val	Gly	Tyr	Leu	Arg	Glu	Ser	He	Ala
	290					295					300				
Arg	Asn	His	Leu	Thr	Asp	Arg	Leu	Asn	Leu	lle	11e	Thr	Ser	Asp	His
305					310					315					320
Gly	Met	Thr	Thr	Val	Asp	Lys	Arg	Ala	Gly	Asp	Leu	Val	Glu	Phe	His
				325					330					335	
Lys	Phe	Pro	Asn	Phe	Thr	Phe	Arg	Asp	He	Glu	Phe	Glu	Leu	Leu	Asp
			340					345					350		
Tyr	Gly	Pro	Asn	Gly	Met	Leu	Leu	Pro	Lys	Glu	Gly	Arg	Leu	Glu	Lys
		355					360					365			

Val Tyr Asp Ala Leu Lys Asp Ala His Pro Lys Leu His Val Tyr Lys Lys Glu Ala Phe Pro Glu Ala Phe His Tyr Ala Asn Asn Pro Arg Val Thr Pro Leu Leu Met Tyr Ser Asp Leu Gly Tyr Val lle His Gly Arg lle Asn Val Gln Phe Asn Asn Gly Glu His Gly Phe Asp Asn Lys Asp Met Asp Met Lys Thr Ile Phe Arg Ala Val Gly Pro Ser Phe Arg Ala Gly Leu Glu Val Glu Pro Phe Glu Ser Val His Val Asn Glu Leu Met Cys Arg Leu Leu Gly 11e Val Pro Glu Ala Asn Asp Gly His Leu Ala Thr Leu Leu Pro Met Leu His Thr Glu Ser Ala Leu Pro Pro Asp Gly Arg Pro Thr Leu Leu Pro Lys Gly Arg Ser Ala Leu Pro Pro Ser Ser Arg Pro Leu Leu Val Met Gly Leu Leu Gly Thr Val Ile Leu Leu Ser Glu Val Ala

<210> 4139

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4139

Met Thr Thr Leu Ser Asn Arg Asn Lys Tyr Leu Ser Cys Leu Val Trp Leu Thr Met Asp Arg Thr Phe Ser Ser Pro Ser 11e Phe Gly Leu Pro Asn Ser Ser Ser Phe Thr Cys Trp Glu Gly Glu Gly Pro Ser Ala Gly

Ala Gly Ala Ala Pro Val Leu Leu Thr Ala Arg Ala Gly Gln Thr Val Val His Pro Arg Glu Leu Pro Thr Gly Ser Arg Gly Gly Thr Lys Gly Asn Ser Pro Cys Gly Ser Gln Leu Val Leu Arg Met Asp Glu Gly Gly Cys Arg Arg Pro Gly Arg Asp Trp Ala Trp Gln Leu Leu Ser Leu Ser Trp Pro Ala Leu Pro Arg Gly Ser Leu Gln Leu Trp Gly Gln Arg Ala Ile Asp Gly Ala Gly Cys Val His Arg Gly Arg Arg Cys Val Glu Pro Gln Ala Gly Pro Gly Arg Lys Ser Gln Lys Pro Lys Pro His Val Gln Glu Arg Thr Asn Ser Ala Tyr Leu Leu Gln Gly Gly Trp Gly Arg Gly Pro Ala Lys Gly Glu Ala Ser Thr Gln Thr Pro Val Trp Phe Ala Glu Val His Phe Arg Cys Leu Ser Gly Phe Val Ser Val Thr Leu Leu Ile Gln Arg Glu Leu Leu Leu Thr Cys Ser Leu Arg Gly Phe Gln Ser Val His Thr Asp Arg Lys Arg Trp Arg Lys Met Leu Gln Asp Thr Asn Arg Ala Leu Pro Gly Arg Cys Ser Arg His Arg Leu Ser Val Ser Phe Gln Gly Leu Ser Pro Arg Gly Cys Lys Asp Ser Phe Gly Val Thr

<210> 4140

<211> 426

<212> PRT

<213> Homo sapiens

<400> 4140

Met	Gly	Glu	Pro	Gly	Gln	Ser	Pro	Ser	Pro	Arg	Ser	Ser	His	Gly	Ser
1				5					10					15	
Pro	Pro	Thr	Leu	Ser	Thr	Leu	Thr	Leu	Leu	Leu	Leu	Leu	Cys	Gly	His
			20					25					30		
Ala	His	Ser	Gln	Cys	Lys	11e	Leu	Arg	Cys	Asn	Ala	Glu	Tyr	Val	Ser
		35					40					45			
Ser	Thr	Leu	Ser	Leu	Arg	Gly	Gly	Gly	Ser	Ser	Gly	Ala	Leu	Arg	Gly
	50					55					60				
Gly	Gly	Gly	Gly	Gly	Arg	Gly	Gly	Gly	Val	Gly	Ser	Gly	Gly	Leu	Cys
65					70					75					80
Arg	Ala	Leu	Arg	Ser	Tyr	Ala	Leu	Cys	Thr	Arg	Arg	Thr	Ala	Arg	Thr
				85					90					95	
Cys	Arg	Gly	Asp	Leu	Ala	Phe	His	Ser	Ala	Val	His	Gly	Пе	Glu	Asp
			100					105					110		
Leu	Met	He	Gln	His	Asn	Cys	Ser	Arg	Gln	Gly	Pro	Thr	Ala	Pro	Pro
		115					120					125			
Pro		Arg	Gly	Pro	Ala		Pro	Gly	Ala	G1 y	Ser	Gly	Leu	Pro	Ala
	130					135					140				
	Asp	Pro	Cys	Asp		Glu	Gly	Arg	Phe		Arg	Leu	His	G1y	
145					150			~		155					160
Pro	Pro	Gly	Phe		His	Cys	Ala	Ser		G1 y	Asp	Pro	His		Arg
0	D)			165	D.		<i>a</i>		170		0.1			175	
Ser	Phe	His		His	Phe	His	lhr		Arg	Val	GIn	Gly		lrp	Pro
1	T	Α.	180	4	DI	1	D	185	C1	13	T)	C	190	D	и.
Leu	Leu	Asp	ASI	ASP	rne	Leu		val	GIN	ATA	Inr		ser	Pro	Me t
A 1 o	Lou	195	A10	Acn	Alo	Than	200	Tha	Ana	Luc	Lon	205	110	116	Dho
мта	210	Gly	Ма	ASH	MIA	215	Ма	1111	мв	LyS	220	1111	116	116	rne
lve		Met	Gln	Glu	Cve		Aen	Gln	Lve	Val		Gln	Ala	Glu	Val
225	изн	MCL	GIII	Ora	230	110	пар	OIII	rigo	235	1 y 1	0111	MIa	Olu	240
	Asn	Leu	Pro	Val		Phe	Glu	Asn	Glv		11e	Asn	Glv	Glv	
пор		50.0	.10	245			0,4	. 1.5 [5	250	001	110	11011	0.,	255	
Arg	Pro	Gly	Glv		Ser	Leu	Ser	He		Thr	Ala	Asn	Pro		Asn
0			260					265					270		
His	Val	Glu		Gln	Ala	Ala	Tvr		Glv	Thr	Thr	lle		11e	Arg
	•	275					280		•			285			J

Gln	Thr	Ala	Gly	Gln	Leu	Ser	Phe	Ser	He	Lys	Val	Ala	Glu	Asp	Val
	290					295					300				
Ala	Met	Ala	Phe	Ser	Ala	Glu	Gln	Asp	Leu	Gln	Leu	Cys	Val	Gly	Gly
305					310					315					320
Cys	Pro	Pro	Ser	Gln	Arg	Leu	Ser	Arg	Ser	Glu	Arg	Asn	Arg	Arg	Gly
				325					330					335	
Ala	He	Thr	He	Asp	Thr	Ala	Arg	Arg	Leu	Cys	Lys	Glu	Gly	Leu	Pro
			340					345					350		
Val	Glu	Asp	Ala	Tyr	Phe	His	Ser	Cys	Val	Phe	Asp	Val	Leu	Пe	Ser
		355					360					365			
C1		D		Dha	The	V = 1	A 1 a	A T	C 1	A 1	۸1.	,	C1		A 1 a
Gly	Asp	Pro	Asn	rne	1111	vai	на	на	GIn	на	Ala	Leu	GIU	Asp	ATA
61 y	370	Pro	Asn	rne	1111	375	мта	на	GIn	на	380	Leu	GIU	Asp	Ala
	370										380			·	
	370					375					380			·	
Arg 385	370 Ala	Phe	Leu	Pro	Asp 390	375	Glu	Lys	Leu	His 395	380 Leu	Phe	Pro	Ser	Asp 400
Arg 385	370 Ala	Phe	Leu	Pro	Asp 390	375 Leu	Glu	Lys	Leu	His 395	380 Leu	Phe	Pro	Ser	Asp 400
Arg 385 Ala	370 Ala Gly	Phe Val	Leu Pro	Pro Leu 405	Asp 390 Ser	375 Leu	Glu Ala	Lys Thr	Leu Leu 410	His 395	380 Leu	Phe	Pro	Ser Leu	Asp 400

<210> 4141

<211> 128

<212> PRT

<213> Homo sapiens

<400> 4141

Met Tyr Cys Gln Asp Ser Asn Ile Cys Ala Val Phe Ala Val Gln Gly 10 Gly Lys Val Gly Arg Lys His Gly Ile Lys Arg Gly Arg Arg Pro Ser 20 30 25 lle Arg Ser Pro Ala Gln Arg Ala Arg Gly Pro Trp He His Glu Ser 40 45Lys His Pro Ala Phe Ala Lys Gln Gln He Asn Leu Glu Met Pro Asn 50 55 60 Ser Arg Ala Thr Thr Glu Leu Ala Trp Val Cys Ser Ser Thr Ser Arg 65 70 75 80

Lys Lys Lys Trp Ala Gly Ser Leu Thr Leu Ser Thr Ala Pro Leu Ser Pro Pro Pro Pro Ser Leu Val His Cys Glu Asp Cys Ser Cys Leu Pro Gly Lys His Ser Gly Asp Leu Tyr Asn Leu Ala Pro Ala Glu Arg Thr Cys 115 Leu 125 Leu

<210> 4142

<211> 386

<212> PRT

<213> Homo sapiens

<400> 4142

Met Asn Gly Thr lle Tyr Ser Pro Gly Tyr Pro Asp Glu Tyr Pro Asn
1 5 10 15

Phe Gln Asp Cys Phe Trp Leu Val Arg Val Pro Pro Gly Asn Gly 11e 20 25 30

Tyr Ile Asn Phe Thr Val Leu Gln Thr Glu Pro Ile Tyr Asp Phe Ile 35 40 45

Thr Val Trp Asp Gly Pro Asp Gln Asn Ser Pro Gln 11e Gly Gln Phe 50 55 60

Ser Gly Asn Thr Ala Leu Glu Ser Val Tyr Ser Thr Ser Asn Gln llc 65 70 75 80

Leu Ile Lys Phe His Ser Asp Phe Thr Thr Ser Gly Phe Phe Val Leu

85 90 95

Ser Tyr His Ala Tyr Gln Leu Arg Val Cys Gln Pro Pro Pro Pro Val
100 105 110

Pro Asn Ala Glu IIe Leu Thr Glu Asp Asp Glu Phe Glu IIe Gly Asp 115 120 125

11e 11e Arg Tyr Gln Cys Leu Pro Gly Phe Thr Leu Val Gly Asn Ala 130 135 140

Ile Leu Thr Cys Arg Leu Gly Glu Arg Leu Gln Met Asp Gly Ala Pro
145 150 155 160

Pro Val Cys Gln Val Leu Cys Pro Ala Asn Glu Leu Arg Leu Asp Ser

165 170 175

Thr Gly Val 11e Leu Ser Pro Gly Tyr Pro Asp Ser Tyr Pro Asn Leu Gln Met Cys Ala Trp Ser lle Ser Val Glu Lys Gly Tyr Asn lle Thr Met Phe Val Glu Phe Phe Gln Thr Glu Lys Glu Phe Asp Val Leu Gln Val Tyr Asp Gly Pro Asn Ile Gln Ser Pro Val Leu Ile Ser Leu Ser Gly Asp Tyr Ser Ser Ala Phe Asn Ile Thr Ser Asn Gly His Glu Val Phe Leu Gln Trp Ser Ala Asp His Gly Asn Asn Lys Lys Gly Phe Arg lle Arg Tyr Ile Ala Phe Tyr Cys Ser Thr Pro Glu Ser Pro Pro His Gly Tyr Ile Ile Ser Gln Thr Gly Gly Gln Leu Asn Ser Val Val Arg Trp Ala Cys Asp Arg Gly Phe Arg Leu Val Gly Lys Ser Ser Ala Val Cys Arg Lys Ser Ser Tyr Gly Tyr His Ala Trp Asp Ala Pro Val Pro Ala Cys Gln Gly Glu Val Tyr Tyr Ala Lys Met Asn Lys Asn Met Asn Val Arg Leu Ala Pro Phe Asn Val Phe Ile Trp Ile Thr Asn Phe Ser Glu Asn Gly Asn Ile Arg Lys His Ile Val Asn Ser Phe His Lys Asn Lys Ala

<210> 4143

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4143

Met Leu Val Glu Val Ala Leu Cys Thr Trp Tyr Leu Val Ala Phe Pro 10 Pro Glu Val Val Thr Asp Trp His Met Leu Pro Thr Glu Ala Leu Val 20 25 30 His Cys Arg Thr Arg Ser Trp Val Ser Phe Gly Leu Ala His Ala Thr 40 Asn Ala Thr Leu Ala Phe Leu Cys Phe Leu Gly Thr Phe Leu Val Arg 55 Ser Gln Pro Gly Arg Tyr Asn Arg Ala Arg Gly Leu Thr Phe Ala Met 65 70 Leu Ala Tyr Phe Ile Thr Trp Val Ser Phe Val Pro Leu Leu Ala Asn 90 Val Gln Val Leu Arg Pro Ala Val Gln Met Gly Ala Leu Leu Leu 100 105 110 Cys Val Leu Gly Ile Leu Ala Ala Phe-His Leu Pro Arg Cys Tyr Leu 120 115 125 Leu Met Arg Gln Pro Gly Leu Asn Thr Pro Glu Phe Phe Leu Gly Gly 135 140 Gly Pro Gly Asp Ala Gln Gly Gln Asn Asp Gly Asn Thr Gly Asn Gln 145 150 155 160 Gly Lys His Glu

<210> 4144

<211> 136

<212> PRT

<213> Homo sapiens

<400> 4144

Met Lys Glu Arg Asp Trp Lys Ser Ser Ser His Asn Thr Val Asn Glu 1 5 10 15 15 Glu Leu Pro His Asn Cys Ile Glu Gln Pro Gln Gln Asn Asp Glu Ser 20 25 30 Ser Ser Lys Val Arg Thr Ser Ser Asp Met Asn Arg Arg Lys Ser Ile 35 40 45

Lys Asp His Leu Lys Asn Ala Met Thr Gly Asn Ala Lys Ala Gln Thr 55 Pro Ile Phe Ser Arg Ser Lys Gln Leu Lys Asp Thr Leu Leu Ser Glu 65 70 75 Glu lle Asn Val Ala Lys Lys Thr lle Glu Ser Ser Ser Asn Asp Leu 85 90 Gly Pro Phe Tyr Ser Leu Pro Ser Lys Val Arg Asp Leu Tyr Ala Gln 105 Phe Lys Gly Ile Glu Lys Leu Tyr Gly Asn Ala Phe Cys Trp Asn Lys 115 120 125 Lys Ile Phe Phe Leu Ser Leu Pro 130 135

<210> 4145

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4145

Met Phe Val Leu Glu Phe Val Glu Pro Trp His Val Asp His Ser Ser

1 5 10 15

Leu Gly Ser Ala Asp Ser Gly Leu Gln Ser Leu Ala Ala Val Thr Ala 20 25 30

Ala Lys Ala Arg Leu Tyr Ser Arg Arg Ser Leu Leu Ser Leu Ser Trp
35 40 45

Thr Leu Pro Leu Ser Ser Arg Val Trp Ala Gly Arg Lys Glu Pro Leu 50 55 60

Arg Lys Leu Asp Ser Leu Trp Thr Leu Pro Leu Glu Ile Ala Val Val 65 70 75 80

Arg Val Leu Ser Gly Trp Phe Leu Ser Leu Ser Arg Tyr Gln Ala Leu
85 90 95

His Trp Leu His Arg Pro lle Gln Ser Val Val Gln Arg lle Lys Pro 100 105 110

Ser Lys Thr Thr Gln Val

```
<211> 404
<212> PRT
<213> Homo sapiens
<400> 4146
Met Ile Thr Glu Ala Leu Ala Gln Gly Gly Met His Ile Arg Ala Arg
                  5
                                     10
Phe Pro Pro Thr Thr Ala Val Ser Ala Ile Pro Ser Ser Ser Ile Pro
             20
                                 25
Leu Gly Arg Gln Pro Met Ala Gln Val Ser Gln Ser Ser Leu Pro Met
                             40
                                                 45
Leu Ser Ser Pro Ser Pro Gly Gln Gln Val Gln Thr Pro Gln Ser Met
     50
                         55
                                             60
Pro Pro Pro Gln Pro Ser Pro Gln Pro Gly Gln Pro Ser Ser Gln
                     70
                                         75
Pro Asn Ser Asn Val Ser Ser Gly Pro Ala Pro Ser Pro Ser Ser Phe
                 85
                                     90
Leu Pro Ser Pro Ser Pro Gln Pro Ser Gln Ser Pro Val Thr Ala Arg
            100
                                105
                                                     110
Thr Pro Gln Asn Phe Ser Val Pro Ser Pro Gly Pro Leu Asn Thr Pro
                           120
                                                125
Val Asn Pro Ser Ser Val Met Ser Pro Ala Gly Ser Ser Gln Ala Glu
    130
                        135
                                            140
Glu Gln Gln Tyr Leu Asp Lys Leu Lys Gln Leu Ser Lys Tyr Ile Glu
                    150
                                        155
Pro Leu Arg Arg Met Ile Asn Lys Ile Asp Lys Asn Glu Asp Arg Lys
                165
                                    170
                                                         175
Lys Asp Leu Ser Lys Met Lys Ser Leu Leu Asp Ile Leu Thr Asp Pro
            180
                                185
Ser Lys Arg Cys Pro Leu Lys Thr Leu Gln Lys Cys Glu Ile Ala Leu
                            200
                                                205
Glu Lys Leu Lys Asn Asp Met Ala Val Pro Thr Pro Pro Pro Pro Pro
```

<210> 4146

Val	Pro	Pro	Thr	Lys	Gln	Gln	Tyr	Leu	Cys	Gln	Pro	Leu	Leu	Asp	Ala
225					230					235					240
Val	Leu	Ala	Asn	lle	Arg	Ser	Pro	Val	Phe	Asn	His	Ser	Leu	Tyr	Arg
				245					250					255	
Thr	Phe	Val	Pro	Ala	Met	Thr	Ala	He	llis	Gly	Pro	Pro	11e	Thr	Ala
			260					265					270		
Pro	Val	Val	Cys	Thr	Arg	Lys	Arg	Arg	Leu	Glu	Λsp	Asp	Glu	Arg	Gln
		275					280					285			
Ser	Ile	Pro	Ser	Val	Leu	Gln	Gly	Glu	Val	Ala	Arg	Leu	Asp	Pro	Lys
	290					295					300				
Phe	Leu	Val	Asn	Leu	Asp	Pro	Ser	His	Cys	Ser	Asn	Asn	Gly	Thr	Val
305					310					315					320
His	Leu	11e	Cys	Lys	Leu	Asp	Asp	Lys	Asp	Leu	Pro	Ser	Val	Pro	Pro
				325					330					335	
Leu	Glu	Leu	Ser	·Val	Pro	Ala	Asp	Tyr	Pro	Ala	G1n	Ser	Pro	Leu	Trp
			340					345					350		
lle	Asp	Arg	Gln	Trp	Gln	Tyr	Asp	Ala	Asn	Pro	Phe	Leu	Gln	Ser	Val
		355					360					365			
His	Arg	Cys	Met	Thr	Ser	Arg	Leu	Leu	Gln	Leu	Pro	Asp	Lys	His	Ser
	370					375					380				
Val	Thr	Ala	Leu	Leu	Asn	Thr	Trp	Ala	Gln	Ser	Val	His	Gln	Ala	Cys
385					390					395					400
Leu	Thr	Ala	Ala												

<210> 4147

<211> 114

<212> PRT

<213> Homo sapiens

<400> 4147

Met Arg Glu 11e Cys 11e Lys Asn Thr Lys Arg Leu Lys Thr Gly Thr 1 5 10 15
Glu Cys Ser Arg Thr Gly Ser Gln Gly Leu Arg Asp Pro Gly Pro Ser 20 25 30

 Ser Ala Arg
 Pro Trp
 Trp Gly
 Arg Ala
 Val Gly
 Arg Arg Glu
 Ala Gly

 Phe Pro Arg
 Val His Ala Arg
 Cys
 Pro Ser Ala Leu
 Ala Ser Leu
 Pro

 50
 55
 60
 60

 Pro Cys
 Val Ala Cys
 Ser Pro Phe Ser Leu
 Pro Asp Pro Gly
 Cys
 Phe 65

 Asp Asp Leu
 Gln Ala Leu
 Arg Val Asp Asp Asp Ala Leu
 Leu Leu Leu
 Ser Phe Ile

 85
 90
 95

 Pro Gln Arg
 Cys
 Thr Val Leu
 Gly
 Thr Gly
 Arg Ser Trp Ala
 Cys Lys

 100
 105
 110

<210> 4148

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4148

Met Gln Tyr Tyr Gly Pro Ala Thr Trp Ala Asp Gly Ser Trp Arg Tyr 10 Arg Thr Pro Ile Tyr Met Leu Asn His Ile Ile Trp Leu Gln Ala Val 20 25 Leu Glu lle lle Thr Asn Asp Thr Ala Arg Ala Leu Asn Leu Leu Ala 35 40 45 Arg Lys Ser Thr Glu Met Arg Asn Ala Val Tyr Gln Asn Arg Leu Ala 55 60 Leu Asp Tyr Leu Leu Ala Gln Glu Gly Gly Val Cys Arg Lys Phe Ser 65 70 75 80 Leu Thr Asn Cys Cys Leu Lys 11e Asp Asp Asn Gly Lys Val Val Lys 85 90 Gln Lys Ala Ala Arg 11e Gln Lys Leu Ala His 11e Pro Val Lys Thr

105

```
<210> 4149
<211> 116
<212> PRT
<213> Homo sapiens
<400> 4149
Met Asp Lys Phe Pro Asn Ala Tyr Thr Leu Pro Arg Leu Asn Gln Glu
                                     10
Glu Ile Glu Ser Leu Asn Arg Pro Thr Met Ser Ser Glu Val Glu Ala
             20
                                 25
                                                      30
Val 11e Asn Ser 11e Pro Thr Lys Lys Gly Pro Gly Pro Asp Gly Phe
                             40
                                                  45
Thr Asp Glu Phe Tyr Gln Met Tyr Lys Glu Glu Leu Val Pro Phe 11e
                         55
                                              60
Gln lle Glu Thr lle Pro Lys lle Glu Ala Glu Gly Leu Leu Leu Asn
65
                     70
                                          75
                                                              80
Ser Phe Cys Glu Val Ser Ile Ile Leu Ile Pro Lys Pro Gly Arg His
                                      90
Thr Lys Gln Asn Lys Thr Lys Gln Asn Lys Thr Lys Lys Lys Thr Ser
            100
                                 105
                                                     110
Asp Gln Tyr Pro
        115
<210> 4150
⟨211⟩ 306
<212> PRT
<213> Homo sapiens
<400> 4150
Met Asp Gly Arg Gly Ala Phe Trp Thr Val Ala lle Pro Arg Ala Arg
Gln Glu Gly Leu Gly Arg Leu Gly Leu Pro Phe Pro Val Lys Arg Thr
             20
                                 25
                                                      30
Pro Pro Ala Pro Gln Asn Pro Gly Gly Ser Thr Gln Ala Pro Gln Arg
```

40

45

Val	Val	Gly	Lys	Ser	His	Ser	G]y	He	Arg	Met	Pro	Ala	Lys	Ser	Arg
	50					55					60				
Asn	Leu	Arg	Leu	Glu	Ser	Lys	Leu	Asn	Arg	Lys	Val	Va]	Lys	Tyr	Lys
65					70					75					80
Trp	Gly	Lys	Gln	Gly	Ser	Gly	Ala	Gly	Arg	Glu	Leu	Val	Pro	Ala	Phe
				85					90					95	
Pro	Thr	Asn	Ala	Gly	Leu	Gly	Arg	Arg	Asp	Arg	Cys	Arg	Pro	Pro	Pro
			100					105					110		
Ala	Gly	Gly	Asp	Val	Ala	Ser	His	Gly	Leu	Pro	Gly	Ser	G1 y	Val	Gly
		115					120					125			
Tyr	Ser	Cys	Asn	Gln	Arg	Glu	Glu	Gly	Leu	Arg	Gly	Gly	Cys	Gly	Gly
	130					135					140				
Пе	Pro	His	Val	Pro	Leu	Phe	Leu	Ser	Pro	Leu	Pro	Leu	Asp	Ala	Ser
145					150					155					160
Gly	Gln	Arg	Pro	Ser	Ser	Thr	Tyr	Arg	Gln	Ser	Leu	Arg	Arg	Gly	Leu
				165					170					175	
Gly	Thr	Arg	Ala	His	Gln	Ser	Pro	Ala	Asn	Glu	He	Pro	Glu	Leu	Gly
			180					185					190		
Asp	Leu	Arg	Gly	Ser	Arg	Leu	Ala	Gln	Glu	Pro	Ala	Val	Leu	Phe	Gly
		195					200					205			
Leu	Α.														
	Arg	Pro	Ser	He	Ser	Lys	Arg	Gly	Leu	Leu	Ala	Arg	Arg	Leu	Trp
	Arg 210	Pro	Ser	Ile	Ser	Lys 215	Arg	Gly	Leu	Leu	Ala 220	Arg	Arg	Leu	Trp
Ala	210					215				Leu Val	220				
Ala 225	210					215					220				
225	210 Gln	Pro	Met	Leu	Leu 230	215 Ser	Gly	Trp	Val	Val	220 Ser	Thr	Thr	Thr	Thr 240
225	210 Gln	Pro	Met	Leu	Leu 230	215 Ser	Gly	Trp	Val	Val 235	220 Ser	Thr	Thr	Thr	Thr 240
225 11e	210 Gln Ile	Pro Thr	Met Val	Leu Thr 245	Leu 230 Val	215 Ser Thr	G1y Phe	Trp Thr	Val Pro 250	Val 235	220 Ser Gly	Thr Leu	Thr Leu	Thr Cys 255	Thr 240 Val
225 11e	210 Gln Ile	Pro Thr	Met Val	Leu Thr 245	Leu 230 Val	215 Ser Thr	G1y Phe	Trp Thr	Val Pro 250	Val 235 Thr	220 Ser Gly	Thr Leu	Thr Leu	Thr Cys 255	Thr 240 Val
225 11e Lys	210 Gln Ile His	Pro Thr Ser	Met Val Arg 260	Leu Thr 245 Gly	Leu 230 Val Pro	215 Ser Thr Leu	Gly Phe Gln	Trp Thr Pro 265	Val Pro 250 Thr	Val 235 Thr	220 Ser Gly Gln	Thr Leu Glu	Thr Leu Ser 270	Thr Cys 255 Ala	Thr 240 Val Pro
225 11e Lys	210 Gln Ile His	Pro Thr Ser	Met Val Arg 260	Leu Thr 245 Gly	Leu 230 Val Pro	215 Ser Thr Leu	Gly Phe Gln	Trp Thr Pro 265	Val Pro 250 Thr	Val 235 Thr Cys	220 Ser Gly Gln	Thr Leu Glu	Thr Leu Ser 270	Thr Cys 255 Ala	Thr 240 Val Pro
225 11e Lys Glu	210 Gln Ile His	Pro Thr Ser Arg 275	Met Val Arg 260 Val	Leu Thr 245 Gly	Leu 230 Val Pro Lys	215 Ser Thr Leu Gly	Gly Phe Gln Gln 280	Trp Thr Pro 265 Cys	Val Pro 250 Thr	Val 235 Thr Cys	220 Ser Gly Gln Glu	Thr Leu Glu Ser 285	Thr Leu Ser 270 Ser	Thr Cys 255 Ala Cys	Thr 240 Val Pro
225 11e Lys Glu	210 Gln Ile His	Pro Thr Ser Arg 275	Met Val Arg 260 Val	Leu Thr 245 Gly	Leu 230 Val Pro Lys	215 Ser Thr Leu Gly	Gly Phe Gln Gln 280	Trp Thr Pro 265 Cys	Val Pro 250 Thr	Val 235 Thr Cys Ser	220 Ser Gly Gln Glu	Thr Leu Glu Ser 285	Thr Leu Ser 270 Ser	Thr Cys 255 Ala Cys	Thr 240 Val Pro
225 11e Lys Glu Gln	210 Gln Ile His Asn	Pro Thr Ser Arg 275	Met Val Arg 260 Val	Leu Thr 245 Gly	Leu 230 Val Pro Lys	215 Ser Thr Leu Gly	Gly Phe Gln Gln 280	Trp Thr Pro 265 Cys	Val Pro 250 Thr	Val 235 Thr Cys Ser	220 Ser Gly Gln Glu Leu	Thr Leu Glu Ser 285	Thr Leu Ser 270 Ser	Thr Cys 255 Ala Cys	Thr 240 Val Pro

<210> 4151 <211> 124 <212> PRT <213> Homo sapiens <400> 4151 Met Ala Pro Thr Ser Thr Trp Ala Pro Gly Leu Gly Thr Gly Phe Ser 10 Leu Gly Ser Ser Ser Ser Leu Leu Pro Thr Thr Asp Pro His Gln Val 30 20 25 Leu Ser Arg Ser Gly Pro Asn Gly Ser Leu Glu Phe Gly Pro Leu Val 40 45 Ser Ser Pro Ala Ser Pro Phe Leu Val Gln Ala Gln Ile Ser Leu Thr 55 60 Lys 11e Val Gln Leu Pro Ser Arg Asn Gly Glu Phe 11e Pro Leu I1e 65 70 75 80 Leu Pro Pro Ser Phe Arg Leu Pro Thr Leu Phe Cys Ser Gln Ser Asp 90 Leu Lys Val Phe Leu Trp Leu His Ser Cys Ala Leu Lys Leu Ser Val 100 105 110 Ala Pro Gln Gly Pro Gln Arg Arg Gly Arg Gly Gly 115 120 <210> 4152 <211> 131 <212> PRT <213> Homo sapiens <400> 4152 Met Lys Ala Thr Asn Phe Leu Leu His Ser Cys Leu Ala Ala Ile Tyr Leu Gly Gln Pro 11e Ser Leu Ala Pro Gln Arg His Thr Arg Leu Gln 25

Tyr Pro Lys Arg Pro Tyr Gln Phe Leu Ser Glu Ala Arg Gln Ile Val

45

40

Lys Asn Gln Ile Cys Ser Lys Val Leu Gly Pro Pro Leu Ser Ser Asp Arg Cys Arg Gln Val Phe Ser Leu Ala Gln Val Pro Val Ala Ser Leu 70 75 80 Pro Leu Glu Val Trp Pro Ala Ser Leu Ala Val Asn Pro Val Arg Gly 85 90 Pro His Leu Ser Leu Ser Ala Ala Ile Ser Phe Cys Thr Ala Ala Ile 100 105 Leu Leu Pro Ala Ser Ser Pro Pro Pro Ser Tyr Phe Leu Phe Ser Leu 115 120 125 Leu Pro Phe 130 <210> 4153 <211> 151 <212> PRT <213> Homo sapiens <400> 4153 Met Thr Lys Glu Tyr Gln Asp Leu Gln His Leu Asp Asn Glu Glu Ser 10 Asp His His Gln Leu Arg Lys Gly Glu Gly His Leu Ala Leu Pro Leu 25 Gln Gly Glu Asn Leu Ala Val Leu His Pro Pro Ala Thr Ala Pro Thr 40 Leu Ala Arg Glu Pro Gly Ser Leu Ser Gly Ser Val Ser Leu Pro Gln 60 55 His Trp Glu Arg Cys Arg Asn Cys Leu Ser Gln Glu Arg Gly Gly Val

95
Ala Ser Trp Pro Ser Glu Val Asp Pro Gly Val Trp Glu Gln Leu Glu
100
Ala Gly Glu Met Arg Ser Leu Ser Ala Ser Tyr Asp Glu Val Thr Pro
115
120
120
135

Trp Gly Trp Ile Pro Phe Ile Gly Asp Arg Cys Pro Lys Leu Ser Cys

75

80

70

Pro Leu Pro Phe Pro Phe Gln His His Pro Gly Thr Pro Val Val Arg
130 135 140

Ala Cys Ala Cys Val Cys Gln
145 150

<210> 4154

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4154

Met Gly Gly Val Pro Glu Pro Phe Pro Ser Pro Leu Arg Arg Gln Gln 1 5 10 15

Arg Arg Val Gly Lys Trp Scr Gly Ser Ser Leu Gly Gly Leu Ala Gln
20 25 30

Val Leu Arg Asn Cys Asn Arg Lys Cys Arg Ser Trp Ser Glu Pro Met
35 40 45

Arg Arg Lys Pro His Leu Cys lle Ala His Ala Ser Trp Arg Gly Asp
50 55 60

lle Ile His Ser His Ala Ser His Leu Ser Pro Gln Gly Pro Arg Glu
65 70 75 80

Lys Pro Gln Thr Pro Phe Ser Cys Arg Val Trp Gly Trp Trp Cys Cys 85 90 95

Arg Gly Arg Ala Gly Trp Gly Ser Pro Asp Phe Phe Cys Pro 100 105 110

<210> 4155

<211> 589

<212> PRT

<213> Homo sapiens

<400> 4155

Met Ala Ala Glu Lys Gln Val Pro Gly Gly Gly Gly Gly Gly Gly Ser

1 5 10 15

Gly	Gly	Gly	Gly	Ser	Gly	G1 y	G1 y	Gly	Ser	Gly	Gly	G1 y	Arg	Gly
		20					25					30		
Gly	Gly	Glu	Glu	Asn	Lys	Glu	Asn	Glu	Arg	Pro	Ser	Ala	Gly	Ser
	35					40					45			
Ala	Asn	Lys	Glu	Phe	Gly	Asp	Ser	Leu	Ser	Leu	Glu	He	Leu	Gln
50					55					60				
11e	Lys	Glu	Ser	Gln	Gln	Gln	His	G1 y	Leu	Arg	His	G1 y	Asp	Phe
				70					75					80
Arg	Tyr	Arg	Tyr	Leu	Leu	Leu	Val	Leu	Met	Asp	Ala	Glu	Arg	Ala
			85					90					95	
Ser	Tyr		Met	Gln	Leu	Lys		Glu	Ala	Asn	Thr	Glu	Pro	Arg
		100					105					110		
Arg		His	Leu	Leu	Ser		Leu	Arg	Lys	Ala		Lys	His	Ala
	115					120					125			
	Leu	Glu	Arg	Leu		Glu	Ser	Asn	Arg		Asp	Ala	Lys	Thr
Leu	Glu	Ala	GIn		Tyr	Thr	Ala	Tyr		Ser	Gly	Met	Leu	
0.1		0.1	0.1		,			, ,			D)			160
Glu	His	GIn		Trp	Lys	Ala	Ala		Glu	Ala	Phe	Asn		Cys
TI	7.1	T		,		4.7	C		DI	TI	C I	61		. 1
Inr	11e		61u	Lys	Leu	Ala		Ala	Phe	Inr	61u		61n	Ala
1	т		C1.	A 20 cm	Val	C1		Па	C	Dua	A a m		A 10.00	Т
Leu		ASII	6111	Arg	val		GTU	116	261.	rro		116	Arg	Ty1
Als		Aen	He	Glv	Aen		Sor	Als	He	Aen		الما	Met	Gln
	1) 1	11011	110	оту		OTH	JUI	.110	110		Olu	15 C U	me t	0.111
	Leu	Arg	Ser	Glv		Thr	Glu	G1 v	Leu		Ala	Glu	Lvs	Leu
0		8	~ ~ .		~ .							-10	; 0	240
Ala	Leu	He	Thr		Thr	Arg	Ala	Lys		Ala	Ala	Thr	Met	
			245					250					255	
Val	Glu	Trp		Gly	Arg	Thr	Val		Val	Lys	11e	Asp		Val
		260	J	-			265			-		270	•	
11e	Phe	Leu	Leu	Gly	Leu	Ala	Asp	Asn	Glu	Ala	Ala	He	Val	Gln
	275			•		280					285			
Glu	Ser	Glu	Glu	Thr	Lys	Glu	Arg	Leu	Phe	Glu	Ser	Met	Leu	Ser
290					295					300				
	Gly Ala 50 1le Arg Glu 130 Leu Glu Thr Leu Ala 210 Arg Ala Val 1le Glu	Gly Gly 35 Ala Asn 50 Ile Lys Arg Tyr Arg Phe 115 Glu Leu 130 Leu Glu Glu His Thr Ile Leu Tyr 195 Ala Tyr 210 Arg Leu Ala Leu Ala Leu Val Glu Ile Phe 275 Glu Ser	20 61 61 61 61 61 61 61 6	Cly Gly Glu Glu Ala Asn Lys Glu 50	20 Gly Glu Glu Asn 35	Cate of the color of the c	120 G1y G1y G1u Asn Lys G1u A1a Asn Lys G1u Phe G1y Asp 50	10 10 <td< td=""><td>120 120 121 125 125 125 125 125 120 <th< td=""><td>Cly Gly Glu Glu Asn Lys Glu Asn Gly Arg Ala Asn Lys Glu Phe Gly Asp Ger Ger Ser Flu Lys Glu Phe Gly Asp Ser Leu Ser Jeu Ser Jeu J</td><td> State Stat</td><td> </td><td> </td><td>Gly Gly Gly Asn Lys Gly Asn Ser Leu Gly Gly Asn Gly Asn Gly Gly Asn Asn</td></th<></td></td<>	120 120 121 125 125 125 125 125 120 <th< td=""><td>Cly Gly Glu Glu Asn Lys Glu Asn Gly Arg Ala Asn Lys Glu Phe Gly Asp Ger Ger Ser Flu Lys Glu Phe Gly Asp Ser Leu Ser Jeu Ser Jeu J</td><td> State Stat</td><td> </td><td> </td><td>Gly Gly Gly Asn Lys Gly Asn Ser Leu Gly Gly Asn Gly Asn Gly Gly Asn Asn</td></th<>	Cly Gly Glu Glu Asn Lys Glu Asn Gly Arg Ala Asn Lys Glu Phe Gly Asp Ger Ger Ser Flu Lys Glu Phe Gly Asp Ser Leu Ser Jeu Ser Jeu J	State Stat			Gly Gly Gly Asn Lys Gly Asn Ser Leu Gly Gly Asn Gly Asn Gly Gly Asn Asn

Glu 305	Cys	Arg	Asp	Ala	11e 310	Gln	Val	Val	Arg	Glu 315	G1u	Leu	Lys	Pro	Asp 320
	Lys	Gln	Arg	Asp 325		He	Leu	Glu	Gly 330		Pro	Gly	Lys	Val	
Asn	Leu	G1n	Tyr 340		His	Ser	Tyr	Leu 345		Tyr	11e	Lys	Leu 350		Thr
A]a	Ile	Lys 355		Asn	Glu	Asn	Met 360		Lys	Gly	Leu	Gln 365		Ala	Leu
Leu	G1n 370	Gln	Gln	Pro	Glu	Asp 375	Asp	Ser	Lys	Arg	Ser 380	Pro	Arg	Pro	Gln
Asp 385	Leu	Ile	Arg	Leu	Tyr 390	Asp	lle	lle	Leu	Gln 395	Asn	Leu	Val	Glu	Leu 400
Leu	Gln	Leu	Pro	Gly 405	Leu	Glu	GJu	Asp	Lys 410	Ala	Phe	Gln	Lys	Glu 415	lle
Gly	Leu	Lys	Thr 420	Leu	Val	Phe	Lys	Ala 425	Tyr	Arg	Cys	Phe	Phe 430	He	Ala
Gln	Ser	Tyr 435	Val	Leu	Val	Lys	Lys 440	Trp	Ser	Glu	Ala	Leu 445	Val	Leu	Tyr
Asp	Arg 450	Val	Leu	Lys	Tyr	Ala 455	Asn	Glu	Val	Asn	Ser 460	Asp	Ala	Gly	Ala
Phe 465	Lys	Asn	Ser	Leu	Lys 470	Asp	Leu	Pro	Asp	Val 475	Gln	Glu	Leu	He	Thr 480
Gln	Val	Arg	Ser	G1u 485	Lys	Cys	Ser	Leu	Gln 490	Ala	Ala	Ala	He	Leu 495	Asp
Ala	Asn	Asp	Ala 500	His	Gln	Thr	Glu	Thr 505	Ser	Ser	Ser	Gln	Val 510	Lys	Asp
Asn	Lys	Pro 515	Leu	Val	G1u	Arg	Phe 520	Glu	Thr	Phe	Cys	Leu 525	Asp	Pro	Ser
Leu	Val 530	Thr	Lys	Gln	Ala	Asn 535	Leu	Val	His	Phe	Pro 540	Pro	Gly	Phe	Gln
Pro 545	He	Pro	Cys	Lys	Pro 550	Leu	Phe	Phe	Asp	Leu 555	Ala	Leu	Asn	His	Val 560
A]a	Phe	Pro	Pro	Leu 565	Glu	Asp	Glu	Leu	Glu 570	Gln	Lys	Thr	Lys	Ser 575	G1 y
Leu	Thr	Gly	Tyr 580	He	Lys	Gly	He	Phe 585	Gly	Phe	Arg	Ser			

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<211> 356
<212> PRT
<213> Homo sapiens
<400> 4156
Met Phe Ser Ser Tyr Pro Leu Pro Asn Cys Tyr Leu Ser Asp Ile Thr
  1
                  5
                                      10
                                                          15
Arg Asn Ala Gly Ile Lys Gln Asp Asn Asp Leu Asp Lys Leu Leu Leu
             20
                                 25
Cys Leu Lys Ile Ser Asp Lys Gln Thr Glu Trp Ile Glu Asn Cys Gln
                             40
                                                 45
Arg Gln Phe Cys Lys Met Met Lys Ala Lys Pro Asp lle lle Ser Gly
     50
                         55
Glu Ala Leu Ile Glu Leu Leu Glu Lys Phe Val Leu His Leu Thr Glu
                     70
                                          75
Ser Pro Ser Glu Cys Tyr Phe Pro Ser Val Glu Tyr Thr Ala Thr Asp
                 85
                                      90
                                                          95
Ala Asn Val Lys Asn Glu Ser Leu Ser Ser Val Gln Gln Leu Gly 11e
            100
                                105
                                                     110
Lys Met Thr Val Arg Tyr Gly Lys Phe Leu Ser Leu Leu Lys Asp Gly
                            120
                                                 125
Ala Glu Asn Asp Leu Thr Trp Val Leu Lys His Cys Glu Arg Phe Leu
    130
                        135
                                             140
Lys Gln Gln Gln Thr Ser Ile Lys Ser Ser Leu Leu Cys Leu Gln Gly
                    150
                                        155
Asn Tyr Ala Gly His Asp Trp Phe Val Ser Ser Leu Phe Met 11e Met
                165
                                     170
Leu Gly Asp Lys Glu Lys Thr Phe Gln Phe Leu His Gln Phe Ser Arg
Leu Leu Thr Ser Ala Phe Leu Trp Ser Pro Arg Leu His Ile Ser Ser
                                                 205
                            200
Tyr Leu Pro Asn Asp Thr Val Glu Ser Gly 11e His Pro Val Tyr Phe
```

<210> 4156

Cys Ser Thr His Tyr Ile Glu Met Leu Leu Lys Ala Glu Leu Pro Leu 225 230 235 240 Val Phe Ser Ala Phe His Met Ser Gly Phe Ala Pro Ser Gln 11e Cys 250 245 Leu Gln Trp 11e Thr Gln Cys Phe Trp Asn Tyr Leu Asp Trp 11e Glu 260 265 270 lle Cys His Tyr lle Ala Thr Cys Val Phe Leu Gly Pro Asp Tyr Gln 280 Val Tyr Ile Cys Ile Ala Val Phe Lys His Leu Gln Gln Asp Ile Leu 290 295 300 Gln His Thr Gln Thr Gln Asp Leu Gln Val Phe Leu Lys Glu Glu Ala 310 315 Leu His Gly Phe Arg Val Ser Asp Tyr Phe Glu Tyr Met Glu Ile Leu 325 330 Glu Gln Asn Tyr Arg Thr Val Leu Leu Arg Asp Met Arg Asn lle Arg 340 345 350 Leu Gln Ser Thr 355

<210> 4157

<211> 137

<212> PRT

<213> Homo sapiens

<400> 4157

Met Ser Asn Cys Phe Leu Lys Val Cys Pro Ala Val Ser Ser Tyr Ser

1 5 10 15

Pro Leu Ser Val Gln Val Leu Phe Tyr Phe Pro Ile Ala Pro Cys Pro

20 25 30

His Arg Val Gly Val Gly Glu Val Gln Cys Ala Cys Val His 11e His
35 40 45

lle Phe Arg Cys Tyr Gln Leu Gly Ser Gln Leu lle Cys Ala Ser Phe 50 55 60

Leu Gly Thr Val Leu His Pro Phe Pro Pro Val Gly Ser Ala Phe Glu 65 70 75 80

 Ile
 Gln
 Thr
 Ser
 Ile
 Leu
 Asn
 Tyr
 Thr
 Ile
 Leu
 Thr
 Asn
 Ser
 Leu
 Thr

 Pro
 Met
 Arg
 Leu
 Tyr
 Leu
 Pro
 His
 Val
 Arg
 Val
 Ser
 Gly
 Ser
 Leu
 Cys

 Glu
 Phe
 Val
 Tyr
 Arg
 Tyr
 Leu
 Lys
 Ser
 Asn
 Gln
 Leu
 Ser
 His
 Ser

 His
 Gln
 Ser
 Ser
 Pro
 Arg
 His
 His
 Phe

 130
 Image: Arg
 Interval Arg

<210> 4158

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4158

65 70 75 80
Ala Gly Asn Asn Phe Pro Ala Cys Tyr Leu Phe Arg Asp Pro Glu His
85 90 95

Thr Ala Phe Pro Arg Arg Leu Leu Pro Pro Ala Thr Glu Glu 100 105 110

<210> 4159

<211> 192

<212> PRT

<213> Homo sapiens

<400> 4159 Met Ala Cys Gly Ala Thr Leu Lys Arg Pro Met Glu Phe Glu Ala Ala 10 Leu Leu Ser Pro Gly Ser Pro Lys Arg Arg Cys Ala Pro Leu Pro 20 25 Gly Pro Thr Pro Gly Leu Arg Pro Pro Asp Ala Glu Pro Pro Pro 40 Phe Gln Thr Gln Thr Pro Pro Gln Ser Leu Gln Gln Pro Ala Pro Pro 50 55 60 Gly Ser Glu Arg Arg Leu Pro Thr Pro Glu Gln Ile Phe Gln Asn Ile . 70 75 Lys Gln Glu Tyr Ser Arg Tyr Gln Arg Trp Arg His Leu Glu Val Val 90 85 Leu Asn Gln Ser Glu Ala Cys Ala Ser Glu Ser Gln Pro His Ser Ser 100 105 110 Ala Leu Thr Ala Pro Ser Ser Pro Gly Ser Ser Trp Met Lys Lys Asp 120 Gln Pro Thr Phe Thr Leu Arg Gln Val Gly Ile Ile Cys Glu Arg Leu 130 135 140 Leu Lys Asp Tyr Glu Asp Lys 11e Arg Glu Glu Tyr Glu Gln 11e Leu 150 155 Asn Thr Lys Leu Ala Glu Gln Tyr Glu Ser Phe Val Lys Phe Thr His 165 170 Asp Gln lle Met Arg Arg Tyr Gly Thr Arg Pro Thr Ser Tyr Val Ser 180 185 190

<210> 4160

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4160

Met Thr Ala Met Glu Met Ser Thr Glu Leu Ser Met Phe Phe Trp Lys

1 5 10 15

Glu	Thr	Gln	Thr	Arg	Ile	Pro	Gly	Arg	Trp	Ser	Gly	Arg	Arg	Arg	Glu
			20					25					30		
Ser	G1n	Ala	Arg	۸rg	Met	Val	Ala	Arg	Arg	Gly	Arg	Gly	Ala	Ser	Arg
		35					40					45			
Gly	Arg	Glu	Phe	Arg	Gly	Gln	Glu	Asn	Gly	Leu	Asp	Gly	Thr	Lys	Ser
	50					55					60				
Gly	Gly	Pro	Ser	Gly	Arg	Gly	Thr	Glu	Arg	Gly	Arg	Arg	Gly	Arg	Gly
65					70					75					80
Arg	Gly	Arg	Gly	Gly	Ser	Gly	Arg	Arg	Gly	Gly	Arg	Phe	Ser	Ala	Gln
				85					90					95	
Gly	Met	Gly	Thr	Phe	Asn	Pro	Аlа	Asp	Tyr	Ala	Glu	Pro	Ala	Asn	Thr
			100					105					110		
Asp	Asp	Asn	Tyr	Gly	Asn	Ser	Ser	Val	Ser	Ser	Ser	Leu	Asn	Ser	Gly
		115					120					125			
Ser	Ser	Leu	Gly	Leu	Ser	Leu	Gly	Ser	Asn	Ser	Thr	Val	Thr	Ala	Ser
	130					135					140				
Thr	Arg	Ser	Ser	Val	Ala	Thr	Thr	Ser	Gly	Lys	Ala	Pro	Pro	Asn	Leu
145					150					155					160
Pro	Pro	Gly	Val	Pro	Pro	Leu	Leu	Pro	Asn	Pro	Tyr	lle	Met	Ala	Pro
				165					170					175	
Gly	Leu	Leu	His	Ala	Tyr	Pro	Pro	Gln	Val	Tyr	Gly	Tyr	Asp	Asp	Leu
			180					185					190		
Gln	Met	Leu	Gln	Thr	Arg	Phe	Pro	Leu	Asp	Tyr	Tyr	Ser	He	Pro	Phe
		195					200					205			
Pro	Thr	Pro	Thr	Thr	Pro	Leu	Thr	Gly	Arg	Asp	Gly	Ser	Leu	Ala	Ser
	210					215					220				
Asn	Pro	Tyr	Ser	Gly	Asp	Leu	Thr	Lys	Phe	Gly	Arg	Gly	Asp	Ala	Ser
225					230					235					240
Ser	Pro	Ala	Pro	Ala	Thr	Thr	Leu	Ala	Gln	Pro	Gln	Gln	Asn	Gln	Thr
				245					250					255	
Gln	Thr	His	His	Thr	Thr	Gln	G1n	Thr	Phe	Leu	Asn	Pro	Ala	Leu	Pro
			260					265					270		
Pro	Gly	Tyr	Ser	Tyr	Thr	Ser	Leu	Pro	Tyr	Tyr	Thr	Gly	Va]	Pro	Gly
		275					280					285			
Leu	Pro	Ser	Thr	Phe	Gln	Tyr	Gly	Pro	Ala	Val	Phe	Pro	Val	Ala	Pro
	290					295					300				

<210> 4161

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4161

Met Glu Ala Leu Leu Ser Val Gln Glu Ala Ser Arg Cys Pro Pro Gly

1 5 10 15

Phe Phe Pro Ser Ser Gly Trp Pro Arg Ser Gln Ala Trp Ser Thr Arg

20 25 30

Ser Gln Pro Val Gln Arg Pro Val Ala Cys Leu Pro Gly Pro Leu Pro 35 40 45

Gly Leu Ala Leu Pro Gly Asp Leu Ser Ile Ile Pro Glu Lys Trp Met 50 55 60

Glu Arg Val Met Ala Pro Leu Lys Arg Gln Thr Ser Arg Arg Leu Glu
65 70 75 80

Glu Ser Lys Gly Ser Cys Pro Gln Arg Pro Val Pro Ala Pro Thr Gln 85 90 95

Pro Leu Val Cys Pro Pro Ser Leu Leu Ser Ser Thr Leu Leu Cys Cys 100 105 110

Pro Leu Leu Thr Arg

115

<210> 4162

<211> 279

<212> PRT

<213> Homo sapiens

<400)> 41	162													
Met	Met	Leu	Met	Gln	Ala	Leu	Val	Leu	Phe	Thr	Leu	Asp	Ser	Leu	Asp
1				5					10					15	
Met	Leu	Pro	Ala	Val	Lys	Ala	Thr	Trp	Leu	Tyr	Gly	11e	Gln	He	Thr
			20					25					30		
Ser	Leu	Leu	Leu	Val	Cys	He	Leu	Gln	Phe	Phe	Asn	Ser	Met	He	Leu
		35					40					45			
Gly	Ser	Leu	Leu	Ile	Ser	Phe	Asn	Leu	Ser	Val	Phe	Ile	Ala	Arg	Lys
	50					55					60				
Leu	Gln	Lys	Asn	Leu	Lys	Thr	Gly	Ser	Phe	Leu	Asn	Arg	Leu	Gly	Lys
65					70					75					80
Leu	Leu	Leu	His	Leu	Phe	Met	Val	Leu	Cys	Leu	Thr	Leu	Phe	Leu	Asn
				85					90					95	
Asn	He	He	Lys	Lys	Ile	Leu	Asn	Leu	Lys	Ser	Asp	Glu	His	He	Phe
			100					105					110		
Lys	Phe	Leu	Lys	Ala	Lys	Phe	Gly	Leu	Gly	Ala	Thr	Arg	Asp	Phe	Asp
		115					120					125			
Ala	Asn	Leu	Tyr	Leu	Cys	Glu	Glu	Ala	Phe	Gly	Leu	Leu	Pro	Phe	Asn
	130					135					140				
Thr	Phe	Gly	Arg	Leu	Ser	Asp	Thr	Leu	Leu	Phe	Tyr	Ala	Tyr	He	Phe
145					150					155					160
Val	Leu	Ser	He	Thr	Val	He	Val	Ala	Phe	Val	Val	Ala	Phe	His	Asn
				165					170					175	
Leu	Ser	Asp	Ser	Thr	Asn	Gln	Gln	Ser	Val	Gly	Lys	Met	Glu	Lys	Gly
			180					185					190		
Thr	Val	Asp	Leu	Lys	Pro	Glu	Thr	Ala	Tyr	Asn	Leu	lle	His	Thr	He
		195					200					205			
Leu	Phe	Gly	Phe	Leu	Ala	Leu	Ser	Thr	Met	Arg	Met	Lys	Tyr	Leu	Trp
	210					215					220				
Thr	Ser	His	Met	Cys	Val	Phe	Ala	Ser	Phe	Gly	Leu	Cys	Ser	Pro	Glu
225					230					235					240
He	Trp	Glu	Leu		Leu	Lys	Ser	Val		Leu	Tyr	Asn	Pro	Lys	Arg
				245					250					255	
Пе	Cys	He	Met	Arg	Tyr	Ser	Val	Pro	He	Leu	He	Leu	Leu	Tyr	Leu

Cys Tyr Lys Asn Gln Lys Ser <210> 4163 <211> 221 <212> PRT <213> Homo sapiens <400> 4163 Met Ala Ser Ser Thr Ser Leu Pro Ala Pro Gly Ser Arg Pro Lys Lys Pro Leu Gly Lys Met Ala Asp Trp Phe Arg Gln Thr Leu Leu Lys Lys Pro Lys Lys Arg Pro Asn Ser Pro Glu Ser Thr Ser Ser Asp Ala Ser Gln Pro Thr Ser Gln Asp Asn Pro Leu Pro Pro Ser Leu Ser Ser Val Thr Ser Pro Ser Leu Pro Pro Thr His Ala Ser Asp Ser Gly Ser Ser Arg Trp Ser Lys Asp Tyr Asp Val Cys Val Cys His Ser Glu Glu Asp Leu Val Ala Ala Gln Asp Leu Val Ser Tyr Leu Glu Gly Ser Thr Ala Ser Leu Arg Cys Phe Leu Gln Leu Arg Asp Ala Thr Pro Gly Gly Ala lle Val Ser Glu Leu Cys Gln Ala Leu Ser Ser His Cys Arg Val Leu Leu Ile Thr Pro Gly Phe Leu Gln Asp Pro Trp Cys Lys Tyr Gln Met Leu Gln Ala Leu Thr Glu Ala Pro Gly Ala Glu Gly Cys Thr Ile Pro Leu Leu Ser Gly Leu Ser Arg Ala Ala Tyr Pro Pro Glu Leu Arg

Phe Met Tyr Tyr Val Asp Gly Arg Gly Pro Asp Gly Gly Phe Arg Gln

Val Lys Glu Ala Val Met Arg Tyr Leu Gln Thr Leu Ser <210> 4164 <211> 458 <212> PRT <213> Homo sapiens <400> 4164 Met Glu Glu Glu Lys Asp Asp Ser Pro Gln Ala Asp Phe Cys Leu Gly Thr Ala Leu His Ser Trp Gly Leu Trp Phe Thr Glu Glu Gly Ser Pro Ser Thr Met Leu Thr Gly Ile Ala Val Gly Ala Leu Leu Ala Leu Ala Leu Val Gly Val Leu Ile Leu Phe Met Phe Arg Arg Leu Arg Gln Phe Arg Gln Ala Gln Pro Thr Pro Gln Tyr Arg Phe Arg Lys Arg Asp Lys Val Met Phe Tyr Gly Arg Lys 11e Met Arg Lys Val Thr Thr Leu Pro Asn Thr Leu Val Glu Asn Thr Ala Leu Pro Arg Gln Arg Ala Arg Lys Arg Thr Lys Val Leu Ser Leu Ala Lys Arg 11e Leu Arg Phe Lys Lys Glu Tyr Pro Ala Leu Gln Pro Lys Glu Pro Pro Pro Ser Leu Leu Glu Ala Asp Leu Thr Glu Phe Asp Val Lvs Asn Ser His Leu Pro Ser Glu Val Leu Tyr Met Leu Lys Asn Val Arg Val Leu Gly His Phe Glu Lys

Pro Leu Phe Leu Glu Leu Cys Lys His 11e Val Phe Val Gln Leu Gln

Glu Gly Glu His Val Leu Gln Pro Arg Glu Pro Asp Pro Ser 11e Cys

		195					200					205			
Val	Val	Gln	Asp	Gly	Arg	Leu	Glu	Val	Cys	He	Gln	Asp	Thr	Asp	Gly
	210					215					220				
Thr	G] u	Val	Val	Val	Lys	Glu	Val	Leu	Ala	Gly	Asp	Ser	Val	His	Ser
225					230					235					240
Leu	Leu	Ser	He	Leu	Asp	He	He	Thr	Gly	His	Ala	Ala	Pro	Tyr	Lys
				245					250					255	
Thr	Val	Ser	Val	Arg	Ala	Ala	Пe	Pro	Ser	Thr	lle	Leu	Arg	Leu	Pro
			260					265					270		
Ala	Ala	Ala	Phe	His	Gly	Val	Phe	Glu	Lys	Tyr	Pro	Glu	Thr	Leu	Val
		275					280					285			
Arg	Va]	Val	Gln	He	He	Met	Val	Arg	Leu	Gln	Arg	Val	Thr	Phe	Leu
	290					295					300				
Ala	Leu	His	Asn	Tyr	Leu	Gly	Leu	Thr	Thr	Glu	Leu	Phe	Asn	Ala	Glu
305					310					315					320
Ser	Gln	Ala	He	Pro	Leu	Val	Ser	Val	Ala	Ser	Val	Ala	Ala	Gly	Lys
				325					330					335	
Ala	Lys	Lys	Gln	Val	Phe	Tyr	Gly	Glu	Glu	Glu	Arg	Leu	Lys	Lys	Pro
			340					345					350		
Pro	Arg	Leu	Gln	Glu	Ser	Cys	Asp	Ser	Asp	His	Gly	Gly	Gly	Arg	Pro
		355					360					365			
Ala	Ala	Ala	Gly	Pro	Leu	Leu	Lys	Arg	Ser	His	Ser	Val	Pro	Ala	Pro
	370					375					380				
Ser]]e	Arg	Lys	Gln	He	Leu	Glu	Glu	Leu	Glu	Lys	Pro	Gly	Ala	61 y
385					390					395					400
Asp	Pro	Asp	Pro	Ser	Ala	Pro	Gln	Ala	Arg	Val	Leu	Cys	Leu	Leu	Pro
				405					410					415	
GIn	Cys	Leu	Gly	Gly	Leu	Pro	Pro	Thr	Asp	Thr	Ser	Val	Tyr	Ser	Ser
			420					425					430		
Ala	Ser	Ser	Asp	Cys	Cys	Gly	Cys	Ser	Met	Pro	Val	Leu	Cys	He	Met
		435					440					445			
G1y	His	Lys	Pro	His	Val	Thr	Val	Asp	Thr						
	450					455									

<211> 164 <212> PRT <213> Homo sapiens <400> 4165

<4002 4165

Met Cys His His Ala Arg Leu Ile Val Phe Val Phe Leu Val Glu Thr
1 5 10 15

Gly Phe Leu His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly
20 25 30

Asp Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly lle Thr Gly Met Ser 35 40 45

His Cys Ala Gln Pro Thr Ile Ser Tyr Phe His Val Phe Leu Cys Val 50 55 60

Leu Phe Tyr Phe Ser Arg Trp Ser Leu Ser Val Ala Gln Ala Gly Val 65 70 75 80

Gln Trp Arg Asp Leu Gly Ser Leu Pro Gly Phe Lys Arg Phe Ser Cys 85 90 95

Leu Ser Leu Pro Ser Asn Trp Asp Cys Arg His Pro Pro Ser Cys Pro
100 105 110

Ala Lys Phe Cys Thr Phe Val Glu Met Glu Phe His His Val Gly Gln 115 120 125

Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Leu Pro Thr Leu Ala Ser 130 135 140

Cys Cys Cys Phe

<210> 4166

<211> 165

<212> PRT

<213> Homo sapiens

<400> 4166

Met Pro Thr Met Ser Ser Lys Val Leu Asp Ser Leu Val Val Ala Leu

1				5					10					15	
Leu	Ser	Tyr	Trp	Leu	Asp	Asn	Pro	Lys	His	Cys	Arg	Lys	Leu	His	Ser
			20					25					30		
Ala	Pro	Leu	Gly	Leu	Pro	Gly	Ser	11e	Arg	Leu	Leu	Pro	Leu	Leu	Ser
		35					40					45			
Leu	Gly	Thr	His	Leu	Ser	Lys	Ser	Ser	He	Leu	Lys	Arg	Lys	Phe	Leu
	50					55			٠		60				
Phe	Trp	Arg	Ser	Phe	Val	Asn	Lys	Thr	Ser	He	Gly	Trp	Ala	G]u	Trp
65					70					75					80
Leu	He	Thr	Val	He	Ser	Ala	Leu	Arg	Asp	Ala	Lys	Val	Gly	Arg	Ser
				85					90					95	
Pro	Glu	Val	Arg	Ser	Leu	Arg	Pro	Ala	Trp	Pro	Thr	Trp	Trp	Ser	Pro
			100					105					110		
Val	Ser	Thr	Lys	Asn	Thr	Lys	Lys	Leu	Gly	Arg	Tyr	Gly	Gly	Ala	Arg
		115					120					125			
Leu	Trp	Ser	Gln	Leu	Phe	Gly	Arg	Leu	Arg	Gln	Asp	Asn	His	Leu	Asn
	130					135					140				
Arg	Gly	Asp	Arg	Gly	Cys	Ser	Glu	Pro	Arg	Leu	Cys	His	Cys	Pro	Pro
145					150					155					160
Ala	Trp	Ala	Thr	Lys											
				165											
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<211	D 14	18													
<212	2> PI	T7													
<213	3> Ho	omo s	sapi	ens											
<400)> 41	167													
Met	Pro	Pro	Arg	Leu	Ala	Asn	11e	Leu	Tyr	Phe	Ser	Arg	Asp	Gly	Gly
1				5					10					15	

Phe Cys Arg Val Gly Leu Ala Gly Leu Lys Leu Leu Ser Ser Gly Asp

Pro Pro Ala Ser Val Ser Arg Gly Ala Gly 11e Thr Gly Val Ser His

Arg Ala Arg Pro Leu Asn Thr Cys Gly Pro Val Ile His Pro Ala Leu

	50					55					60				
Lys	Arg	Ser	Ser	His	Leu	Pro	Phe	Trp	Glu	Leu	Gly	Glu	Thr	Ala	Gln
65					70					75					80
He	Val	Thr	Ala	Pro	Pro	Pro	Pro	Arg	Λla	Pro	Leu	Thr	G1 y	Leu	Trp
				85					90					95	
Val	Glu	Pro	Ala	Pro	Val	Pro	Ala	Pro	Ser	Thr	Glu	Ala	Gly	Thr	Val
			100					105					110		
His	Thr	Ala	Ser	Thr	Ala	Arg	Pro	Gly	Glu	Trp	Ala	Ala	Val	His	Leu
		115					120					125			
Gly	Cys	Pro	Ala	Gln	Ser	G1n	Ala	Ser	Ala	Glu	Pro	lle	Leu	Pro	His
	130					135					140				
Cys	Thr	G1n	His												
145															
<210)> 41	168													
<211	> 15	53													
<212	2> PF	RT.													
<213	3> Ho	omo s	sapie	ens											
<213	3> Ho	omo s	sapie	ens											
	3> Ho 3> 41		sapie	ens											
<400)> 41	168			Ser	Arg	Arg	Thr	Arg	Ala	Gly	Val	Leu	Arg	Val
<400)> 41	168			Ser	Arg	Arg	Thr	Arg 10	Ala	Gly	Val	Leu	Arg 15	Val
<400 Met)> 4] Phe	168 11e	Phe	Gly 5					10			Val Thr		15	
<400 Met)> 4] Phe	168 11e	Phe	Gly 5					10					15	
<400 Met 1 His)> 41 Phe Phe	168 lle Arg	Phe Leu 20	Gly 5 Lys	Ala	Tyr	Thr	Cys 25	10 Arg	Cys	Ala		Cys 30	15 Leu	Phe
<400 Met 1 His)> 41 Phe Phe	168 lle Arg	Phe Leu 20	Gly 5 Lys	Ala	Tyr	Thr	Cys 25 Val	10 Arg	Cys	Ala	Thr	Cys 30	15 Leu	Phe
<400 Met 1 His	Phe Phe Phe Val	168 11e Arg 61n 35	Phe Leu 20 Gly	Gly 5 Lys Val	Ala His	Tyr Val	Thr Gln 40	Cys 25 Val	10 Arg Cys	Cys Tyr	Ala Val	Thr Phe	Cys 30 11e	15 Leu Phe	Phe Gly
<400 Met 1 His	Phe Phe Phe Val	168 11e Arg 61n 35	Phe Leu 20 Gly	Gly 5 Lys Val	Ala His	Tyr Val	Thr Gln 40	Cys 25 Val	10 Arg Cys	Cys Tyr	Ala Val	Thr Phe 45	Cys 30 11e	15 Leu Phe	Phe Gly
<400 Met 1 His Ser	Phe Phe Val Arg 50	168 11e Arg Gln 35 Arg	Phe Leu 20 Gly Thr	Gly 5 Lys Val	Ala His Ala	Tyr Val Gly 55	Thr Gln 40 Val	Cys 25 Val Leu	10 Arg Cys	Cys Tyr Val	Ala Val His 60	Thr Phe 45	Cys 30 11e Arg	15 Leu Phe Phe	Phe Gly Lys
<400 Met 1 His Ser	Phe Phe Val Arg 50	168 11e Arg Gln 35 Arg	Phe Leu 20 Gly Thr	Gly 5 Lys Val	Ala His Ala	Tyr Val Gly 55	Thr Gln 40 Val	Cys 25 Val Leu	10 Arg Cys	Cys Tyr Val	Ala Val His 60	Thr Phe 45 Phe	Cys 30 11e Arg	15 Leu Phe Phe	Phe Gly Lys
<400 Met 1 His Ser Ser Ala 65	Phe Phe Val Arg 50 Tyr	168 11e Arg Gln 35 Arg	Phe Leu 20 Gly Thr	Gly 5 Lys Val Arg	Ala His Ala Cys 70	Tyr Val Gly 55 Val	Thr Gln 40 Val	Cys 25 Val Leu Cys	10 Arg Cys Arg Ser	Cys Tyr Val Phe 75	Ala Val His 60 Ser	Thr Phe 45 Phe	Cys 30 11e Arg Gln	15 Leu Phe Phe Gly	Phe Gly Lys Val 80
<400 Met 1 His Ser Ser Ala 65	Phe Phe Val Arg 50 Tyr	168 11e Arg Gln 35 Arg	Phe Leu 20 Gly Thr	Gly 5 Lys Val Arg	Ala His Ala Cys 70	Tyr Val Gly 55 Val	Thr Gln 40 Val	Cys 25 Val Leu Cys	10 Arg Cys Arg Ser	Cys Tyr Val Phe 75	Ala Val His 60 Ser	Thr Phe 45 Phe	Cys 30 11e Arg Gln	15 Leu Phe Phe Gly	Phe Gly Lys Val 80
<400 Met I His Ser Ser Ala 65 His	Phe Phe Val Arg 50 Tyr	168 The Arg Gln 35 Arg Thr	Phe Leu 20 Gly Thr Cys	Gly 5 Lys Val Arg Cys 85	Ala His Ala Cys 70 His	Tyr Val Gly 55 Val	Thr Gln 40 Val Thr	Cys 25 Val Leu Cys	10 Arg Cys Arg Ser Ser 90	Cys Tyr Val Phe 75 Ser	Ala Val His 60 Ser	Thr Phe 45 Phe	Cys 30 11e Arg Gln	15 Leu Phe Phe Gly Val 95	Phe Gly Lys Val 80 Trp
<400 Met I His Ser Ser Ala 65 His	Phe Phe Val Arg 50 Tyr	168 The Arg Gln 35 Arg Thr	Phe Leu 20 Gly Thr Cys	Gly 5 Lys Val Arg Cys 85	Ala His Ala Cys 70 His	Tyr Val Gly 55 Val	Thr Gln 40 Val Thr	Cys 25 Val Leu Cys	10 Arg Cys Arg Ser Ser 90	Cys Tyr Val Phe 75 Ser	Ala Val His 60 Ser	Thr Phe 45 Phe Ala	Cys 30 11e Arg Gln	15 Leu Phe Phe Gly Val 95	Phe Gly Lys Val 80 Trp

Lys Lys Lys Phe Ser Ser Gln His Phe Gly Arg Leu Arg Arg Ala Asp His Glu Val Arg Ser Ser Arg Ser Pro <210> 4169 <211> 369 <212> PRT <213> Homo sapiens <400> 4169 Met Tyr Ser Pro 11e 11e Tyr Gln Ala Leu Cys Glu His Val Gln Thr Gln Met Ser Leu Met Asn Asp Leu Thr Ser Lys Asn 11e Pro Asn Gly Ile Pro Ala Val Pro Cys His Ala Pro Ser His Ser Glu Ser Gln Ala Thr Pro His Ser Ser Tyr Gly Leu Cys Thr Ser Thr Pro Val Trp Ser Leu Gln Arg Pro Pro Cys Pro Pro Lys Val His Ser Glu Val Gln Thr Asp Gly Asn Ser Gln Phe Ala Ser Gln Gly Lys Thr Val Ser Ala Thr Cys Thr Asp Val Leu Arg Asn Ser Phe Asn Thr Ser Pro Gly Val Pro Cys Ser Leu Pro Lys Thr Asp Ile Ser Ala Ile Pro Thr Leu Gln Gln Leu Gly Leu Val Asn Gly 11e Leu Pro Gln Gln Gly 11e His Lys Glu Thr Asp Leu Leu Lys Cys 11e Gln Thr Tyr Leu Ser Leu Phe Arg Ser His Gly Lys Glu Pro His Leu Asp Ser Gln Thr His Arg Ser Pro Thr

Gln Ser Gln Pro Ala Phe Leu Ala Thr Asn Glu Glu Ile Cys Ala Arg Glu Gln 11e Arg Glu Ala Thr Ser Glu Arg Lys Asp Leu Asn 11e His Val Arg Asp Thr Lys Thr Val Lys Asp Val Gln Lys Ala Lys Asn Val Asn Lys Thr Ala Glu Lys Val Arg IIe IIe Lys Tyr Leu Leu Gly Glu Leu Lys Ala Leu Val Ala Glu Gln Glu Asp Ser Glu Ile Gln Arg Leu Ile Thr Glu Met Glu Ala Cys Ile Ser Val Leu Pro Thr Val Ser Gly Asn Thr Asp lle Gln Val Glu Ile Ala Leu Ala Met Gln Pro Leu Arg Ser Glu Asn Ala Gln Leu Arg Arg Gln Leu Arg Ile Leu Asn Gln Gln Leu Arg Glu Gln Gln Lys Thr Gln Lys Pro Ser Gly Ala Val Asp Cys Asn Leu Glu Leu Phe Ser Leu Gln Ser Leu Asn Met Ser Leu Gln Asn Gln Leu Glu Glu Ser Leu Lys Ser Gln Glu Leu Leu Gln Ser Lys Asn Glu Glu Leu Leu Lys Val Ile Glu Asn Gln Lys Asp Glu Asn Lys Lys Пe

<210> 4170

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4170

Met Pro Gln Ser Arg Gln Trp Asp Phe Glu Gly Gly Lys Gly Arg

1 5 10 15

Arg Gln Ala Gly His Ala Leu Arg Gly Ala Arg Thr His Leu Leu His Pro His Val Phe Arg Ala Leu Ser Leu Trp Glu Ala Phe Phe Arg Thr Ala Leu Val Asn Trp Lys Arg Asn Pro Ser Pro Trp Trp Pro Cys Ser Asp Leu Asp Leu Ser Glu Val Thr Leu Pro Leu Arg Ala Leu Gln Ser Leu Leu Ala Gly Gly Gly Thr Ser Pro Ser His Ser His Phe Leu Thr Leu Ser Leu Cys Ile Thr Gly Ser Leu Leu

<210> 4171

<211> 337

<212> PRT

<213> Homo sapiens

<400> 4171

Met Asn Glu Pro Leu Asp Tyr Leu Ala Asn Ala Ser Asp Phe Pro Asp Tyr Ala Ala Ala Phe Gly Asn Cys Thr Asp Glu Asn Ile Pro Leu Lys Met His Tyr Leu Pro Val 11e Tyr Gly 11e 11e Phe Leu Val Gly Phe Pro Gly Asn Ala Val Val Ile Ser Thr Tyr Ile Phe Lys Met Arg Pro Trp Lys Ser Ser Thr lle lle Met Leu Asn Leu Ala Cys Thr Asp Leu Leu Tyr Leu Thr Ser Leu Pro Phe Leu Ile Ilis Tyr Tyr Ala Ser Gly Glu Asn Trp 11e Phe Gly Asp Phe Met Cys Lys Phe 11e Arg Phe Ser Phe His Phe Asn Leu Tyr Ser Ser 11e Leu Phe Leu Thr Cys Phe Ser

lle	Phe	Arg	Tyr	Cys	Val	Ile	lle	His	Pro	Met	Ser	Cys	Phe	Ser	He
	130					135					140				
His	Lys	Thr	Arg	Cys	Ala	Val	Val	Ala	Cys	Ala	Val	Val	Trp	He	He
145					150					155					160
Ser	Leu	Va]	Ala	Val	lle	Pro	Met	Thr	Phe	Leu	He	Thr	Ser	Thr	Asn
				165					170					175	
Arg	Thr	Asn	Arg	Ser	Ala	Cys	Leu	Asp	Leu	Thr	Ser	Ser	Asp	Glu	Leu
			180					185					190		
Asn	Thr	Ile	Lys	Trp	Tyr	Asn	Leu	Ile	Leu	Thr	Ala	Thr	Thr	Phe	Cys
		195					200					205			
Leu	Pro	Leu	Val	He	Val	Thr	Leu	Cys	Tyr	Thr	Thr	lle	He	His	Thr
	210					215					220				
Leu	Thr	His	Gly	Leu	Gln	Thr	Asp	Ser	Cys	Leu	Lys	61n	Lys	Ala	Arg
225					230					235					240
Arg	Leu	Thr	He	Leu	Leu	Leu	Leu	Ala	Phe	Tyr	Val	Cys	Phe	Leu	Pro
				245					250					255	
Phe	His	lle	Leu	Arg	Val	He	Arg	Пе	Glu	Ser	Arg	Leu	Leu	Ser	He
			260					265					270		
Ser	Cys	Ser	lle	Glu	Asn	Gln	He	His	Glu	Ala	Tyr	He	Val	Ser	Arg
		275					280					285			
Pro	Leu	Ala	Ala	Leu	Asn	Thr	Phe	Gly	Asn	Leu	Leu	Leu	Tyr	Val	Val
	290					295					300				
Val	Ser	Asp	Asn	Phe	Gln	Gln	Ala	Val	Cys	Ser	Thr	Va]	Arg	Cys	Lys
305					310					315					320
Val	Ser	Gly	Asn	Leu	Glu	Gln	Ala	Lys	Lys	lle	Ser	Tyr	Ser	Asn	Asn
				325					330					335	
Pro															

<210> 4172

<211> 595

<212> PRT

<213≻ Homo sapiens

<400)> 42	172													
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His	Ala	Asp	Gln	Arg	Ala	Pro	Gly	His	Ser	Gln	Tyr	Leu	Asp	Asn	Asp
			20					25					30		
Asp	Leu	Gln	Ala	Thr	Ala	Leu	Asp	Leu	Glu	Trp	Asp	Met	Glu	Lys	Glu
		35					40					45			
Leu	Glu	Glu	Ser	Gly	Phe	Asp	Gln	Phe	Gln	Leu	Asp	Ser	Ala	Glu	Asn
	50					55					60				
Gln	Asn	Leu	Gly	His	Ser	G1u	Thr	He	Asp	Leu	Asn	Leu	Asp	Ser	Ile
65					70					75					80
Gln	Pro	Ala	Thr	Ser	Pro	Lys	Gly	Arg	Phe	Gln	Arg	Leu	Gln	Glu	Glu
				85					90					95	
Ser	Asp	Tyr	lle	Thr	His	Tyr	Thr	Arg	Ser	Ala	Pro	Lys	Ser	Asn	Arg
			100					105					110		
Cys	Asn	Phe	Cys	His	Val	Leu	Lys	Met	Leu	Cys	Thr	Ala	Thr	Пе	Leu
		115					120					125			
Phe	He	Phe	Gly	11e	Leu	Ile	G1 y	Tyr	Tyr	Val	His	Thr	Asn	Cys	Pro
	100														
	130					135					140				
Ser		Ala	Pro	Ser	Ser		Thr	Val	Asp	Pro		Leu	Tyr	GIn	Glu
Ser 145		Ala	Pro	Ser	Ser 150		Thr	Val	Asp	Pro 155		Leu	Tyr	GIn	Glu 160
145	Asp		Pro Thr		150	Gly				155	Gln				160
145	Asp				150	Gly				155	Gln				160
145 11e	Asp Leu	Lys		lle 165	150 Gln	Gly	Glu	Лsp	11e 170	155 Lys	Gln Lys	Ser	Phe	Arg 175	160 Asn
145 11e	Asp Leu	Lys	Thr	lle 165	150 Gln	Gly	Glu	Лsp	11e 170	155 Lys	Gln Lys	Ser	Phe	Arg 175	160 Asn
145 11e Leu	Asp Leu Val	Lys Gln	Thr Leu	lle 165 Tyr	150 Gln Lys	Gly Ala Asn	Glu Glu	Asp Asp 185	11e 170 Asp	155 Lys Thr	Gln Lys Glu	Ser He	Phe Ser 190	Arg 175 Lys	160 Asn Lys
145 11e Leu	Asp Leu Val	Lys Gln	Thr Leu 180	lle 165 Tyr	150 Gln Lys	Gly Ala Asn	Glu Glu	Asp Asp 185	11e 170 Asp	155 Lys Thr	Gln Lys Glu	Ser He	Phe Ser 190	Arg 175 Lys	160 Asn Lys
145 11e Leu 11e	Asp Leu Val Lys Tyr	Lys Gln Thr 195	Thr Leu 180	lle 165 Tyr Trp	150 Gln Lys Thr	Gly Ala Asn Ser	Glu Glu Leu 200	Asp Asp 185 Gly	lle 170 Asp Leu	155 Lys Thr Glu	Gln Lys Glu Asp	Ser lle Val 205	Phe Ser 190 Gln	Arg 175 Lys Phe	160 Asn Lys Val
145 11e Leu 11e Asn	Asp Leu Val Lys Tyr 210	Lys Gln Thr 195 Ser	Thr Leu 180 Gln Val	lle 165 Tyr Trp Leu	150 Gln Lys Thr	Gly Ala Asn Ser Asp 215	Glu Glu Leu 200 Leu	Asp Asp 185 Gly Pro	11e 170 Asp Leu Gly	155 Lys Thr Glu Pro	Gln Lys Glu Asp Ser 220	Ser lle Val 205 Pro	Phe Ser 190 Gln Ser	Arg 175 Lys Phe Thr	160 Asn Lys Val
145 11e Leu 11e Asn	Asp Leu Val Lys Tyr 210	Lys Gln Thr 195 Ser	Thr Leu 180 Gln	lle 165 Tyr Trp Leu	150 Gln Lys Thr	Gly Ala Asn Ser Asp 215	Glu Glu Leu 200 Leu	Asp Asp 185 Gly Pro	11e 170 Asp Leu Gly	155 Lys Thr Glu Pro	Gln Lys Glu Asp Ser 220	Ser lle Val 205 Pro	Phe Ser 190 Gln Ser	Arg 175 Lys Phe Thr	160 Asn Lys Val
145 lle Leu lle Asn Thr 225	Asp Leu Val Lys Tyr 210 Leu	Lys Gln Thr 195 Ser	Thr Leu 180 Gln Val	lle 165 Tyr Trp Leu Ser	150 Gln Lys Thr Leu Gly 230	Gly Ala Asn Ser Asp 215 Gln	Glu Glu Leu 200 Leu Cys	Asp Asp 185 Gly Pro	11e 170 Asp Leu Gly	155 Lys Thr Glu Pro Pro 235	Gln Lys Glu Asp Ser 220 Asn	Ser Ile Val 205 Pro Gly	Phe Ser 190 Gln Ser Gln	Arg 175 Lys Phe Thr	160 Asn Lys Val Val Cys 240
145 lle Leu lle Asn Thr 225	Asp Leu Val Lys Tyr 210 Leu	Lys Gln Thr 195 Ser	Thr Leu 180 Gln Val	lle 165 Tyr Trp Leu Ser	150 Gln Lys Thr Leu Gly 230	Gly Ala Asn Ser Asp 215 Gln	Glu Glu Leu 200 Leu Cys	Asp Asp 185 Gly Pro	11e 170 Asp Leu Gly	155 Lys Thr Glu Pro Pro 235	Gln Lys Glu Asp Ser 220 Asn	Ser Ile Val 205 Pro Gly	Phe Ser 190 Gln Ser Gln	Arg 175 Lys Phe Thr Pro	160 Asn Lys Val Val Cys 240
145 11e Leu 11e Asn Thr 225 Ser	Asp Leu Val Lys Tyr 210 Leu Glu	Lys Gln Thr 195 Ser Ser	Thr Leu 180 Gln Val Ser	lle 165 Tyr Trp Leu Ser Arg 245	150 Gln Lys Thr Leu Gly 230 Lys	Ala Asn Ser Asp 215 Gln Asp	Glu Leu 200 Leu Cys Ser	Asp Asp 185 Gly Pro Phe	11e 170 Asp Leu Gly His	155 Lys Thr Glu Pro Pro 235 Asp	G1n Lys G1u Asp Ser 220 Asn Leu	Ser He Val 205 Pro Gly Leu	Phe Ser 190 Gln Ser Gln Tyr	Arg 175 Lys Phe Thr Pro Ser 255	160 Asn Lys Val Val Cys 240 Tyr
145 11e Leu 11e Asn Thr 225 Ser	Asp Leu Val Lys Tyr 210 Leu Glu	Lys Gln Thr 195 Ser Ser	Thr Leu 180 Gln Val Ser Ala	lle 165 Tyr Trp Leu Ser Arg 245	150 Gln Lys Thr Leu Gly 230 Lys	Ala Asn Ser Asp 215 Gln Asp	Glu Leu 200 Leu Cys Ser	Asp Asp 185 Gly Pro Phe Ser Leu	11e 170 Asp Leu Gly His	155 Lys Thr Glu Pro Pro 235 Asp	G1n Lys G1u Asp Ser 220 Asn Leu	Ser He Val 205 Pro Gly Leu	Phe Ser 190 Gln Ser Gln Tyr	Arg 175 Lys Phe Thr Pro Ser 255	160 Asn Lys Val Val Cys 240 Tyr
145 lle Leu lle Asn Thr 225 Ser Ala	Asp Leu Val Lys Tyr 210 Leu Glu	Lys Gln Thr 195 Ser Glu Tyr	Thr Leu 180 Gln Val Ser	lle 165 Tyr Trp Leu Ser Arg 245 Ala	150 Gln Lys Thr Leu Gly 230 Lys	Ala Asn Ser Asp 215 Gln Asp Gly	Glu Leu 200 Leu Cys Ser	Asp Asp 185 Gly Pro Phe Ser Leu 265	11e 170 Asp Leu Gly His GIn 250 Lys	155 Lys Thr Glu Pro 235 Asp	Gln Lys Glu Asp Ser 220 Asn Leu Glu	Ser He Val 205 Pro Gly Leu Val	Phe Ser 190 Gln Ser Gln Tyr 11e 270	Arg 175 Lys Phe Thr Pro Ser 255 Asp	160 Asn Lys Val Val Cys 240 Tyr

		275					280					285			
Val	Thr	Asn	Gln	He	Ala	Leu	Leu	Lys	Leu	Gly	Lys	Leu	Pro	Leu	Leu
	290					295					300				
Tyr	Lys	Leu	Ser	Ser	Leu	Glu	Lys	Ala	Gly	Phe	Gly	Gly	Val	Leu	Leu
305					310					315					320
Tyr	He	Asp	Pro	Cys	Asp	Leu	Pro	Lys	Thr	Val	Asn	Pro	Ser	His	Asp
				325					330					335	
Thr	Phe	Met	Val	Ser	Leu	Asn	Pro	Gly	Gly	Asp	Pro	Ser	Thr	Pro	Gly
			340					345					350		
Tyr	Pro	Ser	Val	Asp	Glu	Ser	Phe	Arg	Gln	Ser	Arg	Ser	Asn	Leu	Thr
		355					360					365			
Ser	Leu	Leu	Val	Gln	Pro	He	Ser	Ala	Ser	Leu	Val	Ala	Lys	Leu	He
	370					375					380				
Ser	Ser	Pro	Lys	Ala	Arg	Thr	Lys	Asn	Glu	Ala	Cys	Ser	Ser	Leu	Glu
385					390					395					400
Leu	Pro	Asn	Asn	Glu	lle	Arg	Val	Val	Ser	Met	Gln	Val	Gln	Thr	Val
				405					410					415	
Thr	Lys	Leu	Lys	Thr	Val	Thr	Asn	Va]	Val	Gly	Phe	Val	Met	Gly	Leu
			420					425					430		
Thr	Ser		Asp	Arg	Tyr	He		Val	Gl y	Ser	His	His	His	Thr	Ala
		435					440					445			
His		Tyr	Asn	Gly	Gln	Glu	Trp	Ala	Ser	Ser		Ala	He	He	Thr
	450				_	455				_	460	0.7			••
	Phe	He	Arg	Ala		Met	Ser	Lys	Val		Arg	Gly	Trp	Arg	
465		T)	7.1	N. 1	470	C	C	Tr.	61	475	TI	. 1	101	6.1	480
Asp	Arg	Ihr	11e		Phe	Cys	Ser	Irp			lhr	Ala	Phe		Asn
71.	C1	C	т	485	Δ	C1	C1	Λ	490		1	37 - 3	1	495	T
116	GIY	ser		GIU	Arg	Gly	Gju	505	rne	Lys	Lys	vai	510	GIN	Lys
Aon	Vol	Vo.1	500	Т.,,,,	Ha	Con	Lou		Som	Dra	116	A 12.07		Aan	San
ASII	vai	515	MIA	ı yı	116	Ser	520	1115	sei	F10	116	525	O1 y	ASH	sei
Sor	Lou		Pro	Val	Ala	Ser		Sor	Lou	Gln	Gln		Val	Val	Glu
261	530	1 7 1	110	141	па	535	110	261	Leu	0111	540	Leu	v a1	vai	Oiu
Lve		Asn	Phe	Asn	Cvs	Thr	Aro	Aro	Ala	Gla		Pro	Glu	Thr	Asn
545	11311	11011	1 110	11311	550	1 111	nu g	m g	711 CI	555	Oy3	110	O. u	1111	560
	Ser	Ser	He	Glr		Gln	Glv	Asn	Ala		Tyr	Phe	He	Asn	

565 570 575 Leu Gly Val Pro 11e Val Gln Phe Ala Tyr Glu Asp 11e Lys Thr Leu 585 590 Glu Ala Glu 595 <210> 4173 <211> 102 <212> PRT <213> Homo sapiens <400> 4173 Met Ala Lys Ala Pro Phe Tyr His Leu Leu Phe Cys Phe Gly Ile Trp 5 10 Ser Asp Ser Tyr Ser Ser Leu Gly Leu Ala Gln Trp Arg Asn Trp Cys 20 25 Ser Tyr Cys Thr Gly Leu Cys Thr Pro Cys Asn Cys Asp Val Tyr Asp 40 45 Cys Ser Ser Cys Phe Pro Ile Leu His Phe Gln Ser Pro Arg Ala Val 50 55 60 Leu Ser Arg Thr Thr Lys Leu Pro Arg Ile Lys Pro Pro Asn Met Ala 75 Tyr Pro Cys Ser Ser Asp Val Ile Leu Val Ala Ser Val Asn Ser Val 85 90 95 Cys His Ala Val Gln Thr

<210> 4174

<211> 112

<212> PRT

<213> Homo sapiens

100

<400> 4174

Met lle lle Pro Gly Lys Gly Phe Leu Val Leu Cys Asn Pro Lys Gly

5 10 Arg Asn Ser Pro Met Gly Gly Arg Ile Leu Leu Gly Met Lys Lys Phe 25 Leu Phe Pro Cys His Glu Cys Pro Ala Arg Glu Gln Gly Gly Ser Val 35 40 45 Arg Glu Gly Leu Ser Ser Trp Arg Lys Trp Asp Ser Lys Ser Arg Met 55 Leu Arg Leu Ser Gly Ser Gln Arg Gly Gly Ser Lys Cys Gly Met Trp 70 75 80 Val Ala Leu Trp Phe Ser Gly Ser Val Val Val Pro Ser Thr Ala Asp 85 90 Phe Met Thr Pro His Leu Ser Pro Ser His 11e Val Tyr Pro Ser Val 100 105

<210> 4175

<211> 712

<212> PRT

<213> Homo sapiens

<400> 4175

Met Pro Asp Gln Asp Lys Lys Val Lys Thr Thr Glu Lys Ser Thr Asp

1 5 10 15

Lys Gln Gln Glu 11e Thr 11e Arg Asp Tyr Ser Asp Leu Lys Arg Leu 20 25 30

Arg Cys Leu Leu Asn Val Gln Ser Ser Lys Gln Gln Leu Pro Ala lle 35 40 45

Asn Phe Asp Ser Ala Gln Asn Ser Met Thr Lys Ser Glu Pro Ala Ile 50 55 60

Arg Ala Gly Gly His Arg Ala Arg Gly Gln Trp His Glu Ser Thr Glu
65 70 75 80

Ala Val Glu Leu Glu Asn Phe Ser Ile Asn Tyr Lys Asn Glu Arg Asn
85 90 95

Phe Ser Lys His Pro Gln Arg Lys Leu Phe Gln Glu Ile Phe Thr Ala 100 105 110

Leu Val Lys Asn Arg Leu Ile Ser Arg Glu Trp Val Asn Arg Ala Pro

		115					120					125			
Ser	Ile	His	Phe	Leu	Arg	Val	Leu	11e	Cys	Leu	Arg	Leu	Leu	Met	Arg
	130					135					140				
Asp	Pro	Cys	Tyr	Gln	Glu	He	Leu	His	Ser	Leu	Gly	Gly	He	Glu	Asn
145					150					155					160
Leu	Ala	Gln	Tyr	Met	Glu	He	Val	Ala	Asn	Glu	Tyr	Leu	Gly	Tyr	Gly
				165					170					175	
Glu	Glu	Gln	His	Thr	Val	Asp	Lys	Leu	Val	Asn	Met	Thr	Tyr	lle	Phe
			180					185					190		
Gln	Lys	Leu	Ala	Ala	Val	Lys	Asp	Gln	Arg	Glu	Trp	Val	Thr	Thr	Ser
		195					200					205			
Gly	Ala	His	Lys	Thr	Leu	Val	Asn	Leu	Leu	Gly	Ala	Arg	Asp	Thr	Asn
	210					215					220				
Val	Leu	Leu	Gly	Ser	Leu	Leu	Ala	Leu	Ala	Ser	Leu	Ala	Glu	Ser	Gln
225					230					235					240
Glu	Cys	Arg	Glu	Lys	lle	Ser	Glu	Leu	Asn	He	Val	Glu	Asn	Leu	Leu
				245					250					255	
Met	Ile	Leu	His	Glu	Tyr	Asp	Leu	Leu	Ser	Lys	Arg	Leu	Thr	Ala	Glu
			260					265					270		
Leu	Leu	Arg	Leu	Leu	Cys	Ala	Glu	Pro	Gln	Val	Lys	Glu	Gln	Val	Lys
		275					280					285			
Leu		G] u	Gly	He	Pro		Leu	Leu	Ser	Leu	Leu	His	Ser	Asp	His
	290					295					300				
	Lys	Leu	Leu	Trp		He	Val	Trp	He		Val	Gln	Val	Cys	
305		0.3			310					315	0.3				320
Asp	Pro	Glu	Thr		Val	Glu	He	Arg		Trp	Gly	Gly	He		GIn
			7.1	325	C1	C1	4		330	DI	V. 1	C	4	335	C
Leu	Leu	ms		Leu	GIN	GIY	Asp		Asn	Pne	vai	Ser	Asp	HIS	Ser
Can	Ila	C1	340	Lou	Con	Con	110	345	A 1 a	11 a	C1	A 20.00	350	Cl.	Cla
ser	11e	355	ser	Leu	ser	ser		ASI	ата	ATa	GIY		lle	GIN	GIN
Lon	Ui o		Son	Clu	Acn	Lou	360 Sor	Dro	Ara	C1	11.	365	C1.	Aon	The
Leu	370	Leu	261	Olu	nsp	375	261	110	AIG	O) u	380	0111	Glu	ASH	1111
Pho		Leu	Gla	Als	Ala		Cve	e f A	Ala	Lan		61	Leu	Val	Len
385	261	Leu	GIH	1110	390	Oy S	O, S	1114	1110	395	1111	oru	Leu	• a 1	400
	Asn	Thr	Asn	Ala		Gln	Val	Val	Gln		Asn	Glv	Val	Tvr	

				405					410					415	
He	Ala	Lys	Leu	lle	Leu	Pro	Asn	Lys	Gln	Lys	Asn	Ala	Ala	Lys	Ser
			420					425					430		
Asn	Leu	Leu	Gln	Cys	Tyr	Ala	Phe	Arg	Ala	Leu	Arg	Phe	Leu	Phe	Ser
		435					440					445			
Met	Glu	Arg	Asn	Arg	Pro	Leu	Phe	Lys	Arg	Leu	Phe	Pro	Thr	Asp	Leu
	450					455					460				
Phe	Glu	He	Phe	He	Asp	He	Gly	His	Tyr	Val	Arg	Asp	lle	Ser	Ala
465					470					475					480
Tyr	Glu	Glu	Leu	Val	Ser	Lys	Leu	Asn	Leu	Leu	Val	Glu	Asp	Glu	Leu
				485					490					495	
Lys	Gln	He	Ala	Glu	Asn	Пе	Glu	Ser	He	Asn	Gln	Asn	Lys	Ala	Pro
			500					505					510		
Leu	Lys	Tyr	He	Gly	Asn	Tyr	Ala	11e	Leu	Asp	His	Leu	Gly	Ser	Gly
		515					520					525			
Ala	Phe	Gly	Cys	Val	Tyr	Lys	Va]	Arg	Lys	His	Ser	Gly	Gln	Asn	Leu
	530					535					540				
Leu	Ala	Met	Lys	Glu	Val	Asn	Leu	His	Asn	Pro	Ala	Phe	Gly	Lys	Asp
545					550					555					560
Lys	Lys	Asp	Arg	Asp	Ser	Ser	Val	Arg	Asn	He	Val	Ser	Glu	Leu	Thr
				565					570					575	
He	lle	Lys	Glu	Gln	Leu	Tyr	His	Pro	Asn	lle	Val	Arg	Tyr	Tyr	Lys
			580					585					590		
Thr	Phe	Leu	Glu	Asn	Asp	Arg	Leu	Tyr	He	Val	Met	Glu	Leu	He	Glu
		595					600					605			
Gly	Ala	Pro	Leu	Gly	Glu	His	Phe	Ser	Ser	Leu	Lys	Glu	Lys	His	His
	610										620				
	Phe	Thr	Glu	Glu		Leu	Trp	Lys	He		He	Gln	Leu	Cys	Leu
625					630					635					640
Ala	Leu	Arg	Tyr		His	Lys	Glu	Lys		He	Val	His	Arg		Leu
				645					650					655	
Thr	Pro	Asn		He	Met	Leu	Gly		Lys	Asp	Lys	Val		Val	Thr
			660					665					670		
Asp	Phe		Leu	Ala	Lys	GIn	Lys	GIn	Glu	Asn	Ser		Leu	Thr	Ser
1: 3	1, 1	675	TO 1	7. 7	,	ar.	680	0	., .		,,,	685	<i>m</i>		
Val	Val	GLV	Lhr	He	1 60	Lvr	Ser	Cve	Val	Glo	Hie	en	Lvr	Len	Arg

690 695 700

Ser Pro Ala Pro Ala Leu Ala Thr
705 710

<210> 4176 <211> 117 <212> PRT <213> Homo sapiens

<400> 4176

Met Ser Arg Leu Gly Pro Pro Ala Arg Ile Leu Pro Ser Met Pro Trp

1 5 10 15

Lys Met Thr Cys Ser Trp Leu Tyr Val Phe Pro Leu Asn Thr Asp Cys
20 25 30

Thr Ser Glu Leu Thr Glu Ala Leu Thr Pro Ser Arg Arg Ser Pro Ala 35 40 45

Ala Gly Trp Gly His Gly Gly Ala Val Pro His Phe Leu Arg Ala Pro 50 55 60

Pro Pro His Gln Gly Leu Leu Pro Cys His Gly Gly Val Pro Leu Pro

65 70 75 80

Ser Ser Ser Pro Thr Gly Val Pro Ser Ser Pro Ala Thr Ser Leu Val

85 90 95

Ser Gly Cys Pro His Pro Gly His Ser Gly Gly Glu Gly Val Gly Gly 100 105 110

Gly Trp Glu Pro Arg

115

<210> 4177

<211> 457

<212> PRT

<213> Homo sapiens

<400> 4177

Met	Ser	Asp	Ala	Asn	Lys	Ala	Ala	He	Ala	Ala	Glu	Arg	Glu	Ala	Leu
1				5					10					15	
Asn	Leu	Lys	Leu	Pro	Pro	11e	Val	His	Leu	Pro	Glu	Asn	He	Gly	Ala
			20					25					30		
Asp	Thr	Pro	Thr	Gln	Ser	Lys	Leu	Leu	Lys	Tyr	Arg	Arg	Ser	Lys	Glu
		35					40					45			
Gln	Gln	Gln	Lys	He	Asn	Gln	Leu	Val	He	Asp	Gly	Ala	Lys	Arg	Asn
	50					55					60				
Leu	Asp	Arg	Thr	Leu	Gly	Lys	Arg	Thr	Pro	Leu	Leu	Pro	Pro	Pro	Asp
65					70					75					80
Tyr	Pro	Gln	Thr	Met	Thr	Ser	Glu	Met	Lys	Lys	Lys	Gly	Phe	Asn	Tyr
				85					90					95	
11e	Tyr	Met	Lys	Gln	Cys	Val	Glu	Ser	Ser	Pro	Leu	Val	Pro	He	Gln
			100					105					110		
Gln	Glu	Trp	Leu	Asp	His	Met	Leu	Arg	Leu	He	Pro	Glu	Ser	Leu	Lys
		115					120					125			
Glu	Gly	Lys	Glu	Arg	Glu	G1u	Leu	Leu	Glu	Ser	Leu	He	Asn	Glu	Val
	130					135					140				
		Asp	Phe	Glu		135 Ser	Met	Lys	Arg			Val			
145	Ser				150	Ser				155	Leu		Gln	Ser	160
145	Ser			Pro	150				Glu	155	Leu		Gln	Ser Pro	160
145 Leu	Ser Val	Lys	Pro	Pro 165	150 Val	Ser Lys	Ser	Leu	Glu 170	155 Asp	Leu Glu	Gly	Gln Gly	Ser Pro 175	160 Leu
145 Leu	Ser Val	Lys	Pro Pro	Pro 165	150 Val	Ser	Ser	Leu Tyr	Glu 170	155 Asp	Leu Glu	Gly	Gln Gly His	Ser Pro 175	160 Leu
145 Leu Pro	Ser Val Glu	Lys Ser	Pro Pro 180	Pro 165 Val	150 Val Gly	Ser Lys Leu	Ser Asp	Leu Tyr 185	Glu 170 Ser	155 Asp Asn	Leu Glu Pro	Gly Trp	Gln Gly His	Ser Pro 175 Ser	160 Leu Ser
145 Leu Pro	Ser Val Glu	Lys Ser Gln	Pro Pro 180	Pro 165 Val	150 Val Gly	Ser Lys	Ser Asp	Leu Tyr 185 Phe	Glu 170 Ser	155 Asp Asn	Leu Glu Pro	Gly Trp	Gln Gly His	Ser Pro 175 Ser	160 Leu Ser
145 Leu Pro Tyr	Ser Val Glu Val	Lys Ser Gln 195	Pro Pro 180 Ala	Pro 165 Val	150 Val Gly Asn	Ser Lys Leu Gln	Ser Asp 11e 200	Leu Tyr 185 Phe	Glu 170 Ser Ser	155 Asp Asn Asn	Leu Glu Pro Leu	Gly Trp His 205	Gln Gly His 190 Ile	Ser Pro 175 Ser	160 Leu Ser His
145 Leu Pro Tyr	Ser Val Glu Val Thr	Lys Ser Gln 195	Pro Pro 180 Ala	Pro 165 Val	150 Val Gly Asn	Ser Lys Leu Gln Leu	Ser Asp 11e 200	Leu Tyr 185 Phe	Glu 170 Ser Ser	155 Asp Asn Asn	Leu Glu Pro Leu Thr	Gly Trp His 205	Gln Gly His 190 Ile	Ser Pro 175 Ser	160 Leu Ser His
145 Leu Pro Tyr Pro	Ser Val Glu Val Thr 210	Lys Ser Gln 195 Met	Pro Pro 180 Ala Lys	Pro 165 Val Arg	150 Val Gly Asn Leu	Ser Lys Leu Gln Leu 215	Ser Asp 11e 200 Asp	Leu Tyr 185 Phe Leu	Glu 170 Ser Ser	155 Asp Asn Asn Tyr	Leu Glu Pro Leu Thr 220	Gly Trp His 205 Thr	Gln Gly His 190 Ile Phe	Ser Pro 175 Ser Ile	160 Leu Ser His
145 Leu Pro Tyr Pro	Ser Val Glu Val Thr 210	Lys Ser Gln 195 Met	Pro Pro 180 Ala Lys	Pro 165 Val Arg	150 Val Gly Asn Leu Phe	Ser Lys Leu Gln Leu	Ser Asp 11e 200 Asp	Leu Tyr 185 Phe Leu	Glu 170 Ser Ser	155 Asp Asn Asn Tyr	Leu Glu Pro Leu Thr 220	Gly Trp His 205 Thr	Gln Gly His 190 Ile Phe	Ser Pro 175 Ser Ile	160 Leu Ser His Asp
145 Leu Pro Tyr Pro Thr 225	Ser Val Glu Val Thr 210 Val	Lys Ser Gln 195 Met	Pro Pro 180 Ala Lys Leu	Pro 165 Val Arg Met	150 Val Gly Asn Leu Phe 230	Lys Leu Gln Leu 215 Thr	Ser Asp 11e 200 Asp Gly	Leu Tyr 185 Phe Leu	Glu 170 Ser Ser Gly	155 Asp Asn Asn Tyr Ala 235	Leu Glu Pro Leu Thr 220 Lys	Gly Trp His 205 Thr	Gln Gly His 190 Ile Phe	Ser Pro 175 Ser He Ala	160 Leu Ser His Asp Asp 240
145 Leu Pro Tyr Pro Thr 225	Ser Val Glu Val Thr 210 Val	Lys Ser Gln 195 Met	Pro Pro 180 Ala Lys Leu	Pro 165 Val Arg Met Asp	150 Val Gly Asn Leu Phe 230	Ser Lys Leu Gln Leu 215	Ser Asp 11e 200 Asp Gly	Leu Tyr 185 Phe Leu	Glu 170 Ser Ser Gly Arg	155 Asp Asn Asn Tyr Ala 235	Leu Glu Pro Leu Thr 220 Lys	Gly Trp His 205 Thr	Gln Gly His 190 Ile Phe	Ser Pro 175 Ser He Ala He	160 Leu Ser His Asp Asp 240
145 Leu Pro Tyr Pro Thr 225 Cys	Ser Val Glu Val Thr 210 Val	Lys Ser G1n 195 Met Leu Ser	Pro Pro 180 Ala Lys Leu Leu	Pro 165 Val Arg Met Asp	150 Val Gly Asn Leu Phe 230 Thr	Lys Leu Gln Leu 215 Thr	Ser Asp 11e 200 Asp Gly Leu	Leu Tyr 185 Phe Leu Ile Ser	Glu 170 Ser Ser Gly Arg 11e 250	Asp Asn Asn Tyr Ala 235 Gln	Leu Glu Pro Leu Thr 220 Lys Thr	Gly Trp His 205 Thr Gly Arg	Gln Gly His 190 Ile Phe Pro Asn	Ser Pro 175 Ser He Ala He Ala 255	160 Leu Ser His Asp Asp 240 Glu
145 Leu Pro Tyr Pro Thr 225 Cys	Ser Val Glu Val Thr 210 Val	Lys Ser G1n 195 Met Leu Ser	Pro Pro 180 Ala Lys Leu Leu	Pro 165 Val Arg Met Asp	150 Val Gly Asn Leu Phe 230 Thr	Lys Leu Gln Leu 215 Thr	Ser Asp 11e 200 Asp Gly Leu	Leu Tyr 185 Phe Leu Ile Ser	Glu 170 Ser Ser Gly Arg 11e 250	Asp Asn Asn Tyr Ala 235 Gln	Leu Glu Pro Leu Thr 220 Lys Thr	Gly Trp His 205 Thr Gly Arg	Gln Gly His 190 Ile Phe Pro Asn	Ser Pro 175 Ser He Ala He Ala 255	160 Leu Ser His Asp Asp 240 Glu

Tvr Ser Cys Val Ser Thr Leu Met Ser Asn Gln Leu Lys Asp Leu Leu Arg Arg Thr Val Glu Gly Phe Val Lys Leu Phe Asp Pro Lys Asp Gln Gln Arg Leu Pro Ile Phe Lys Ile Glu Leu Thr Phe Asp Asp Asp Lys Met Glu Phe Tyr Pro Thr Phe Gln Asp Leu Glu Asp Asn Val Leu Ser Leu Val Glu Arg Ile Ala Glu Ala Leu Gln Asn Val Gln Thr Ile Pro Ser Trp Leu Ser Gly Thr Ser Thr Pro Val Asn Leu Asp Thr Glu Leu Pro Glu His Val Leu His Trp Ala Val Asp Thr Leu Lys Ala Ala Val His Arg Asn Leu Glu Gly Ala Arg Lys His Tyr Glu Thr Tyr Val Glu Lys Tyr Asn Trp Leu Leu Asp Gly Thr Ala Val Glu Asn Ile Glu Thr Phe Gln Thr Glu Asp His Thr Phe Asp Glu Tyr Thr Glu Glu Leu Asp Cys Trp Val Val Trp Glu Val Tyr Phe

<210> 4178

<211> 190

<212> PRT

<213> Homo sapiens

<400> 4178

Met Leu Phe Tyr Leu Ser Gly Thr Tyr Tyr Ala Leu Tyr Phe Leu Ala

1 5 10 15

Thr Leu Leu Met 11e Thr Tyr Lys Ser Gln Val Phe Ser Tyr Pro His

20 25 30

Arg Tyr Leu Val Leu Asp Leu Ala Leu Leu Phe Leu Met Gly 11e Leu

35 40 45 Glu Ala Val Arg Leu Tyr Leu Gly Thr Arg Gly Asn Leu Thr Glu Ala 55 60 Glu Arg Pro Leu Ala Ala Ser Leu Ala Leu Thr Ala Gly Thr Ala Leu 70 75 65 80 Leu Ser Ala His Phe Leu Leu Trp Gln Ala Leu Val Leu Trp Ala Asp 85 90 Trp Ala Leu Ser Ala Thr Leu Leu Ala Leu His Gly Leu Glu Ala Val 105 110 Leu Gln Val Val Ala Ile Ala Ala Phe Thr Ser His Thr Ser Pro Phe 120 115 125 Arg Gly Phe Gly Gly Glu Val Arg Ala Lys Ala Gly Asp Glu Thr Ala 135140 Gly Glu Arg Ala Ala Glu Gly His Ile Arg Ser Leu Arg Pro Leu Gln 150 155160 145 Phe Tyr Gln Leu Leu Pro Phe Ala Arg Ser Ala Lys Gln Ile Leu Ala 170 165 Leu Cys Phe Phe Pro 11e Pro Arg Phe Thr 11e Ser Ser Pro 180 185 190

<210> 4179

<211> 215

<212> PRT

<213> Homo sapiens

<400> 4179

Met Asn Leu Ala Cys Gly Glu Asp Val Ser Thr Asn Gly Gln Leu Gly
1 5 10 15

Pro Lys Glu Asp Thr Gly Ser Asn Thr Glu Thr Asn Gln Ile Leu Pro 20 25 30

Arg Pro Ser Cys Tyr Gln Thr Thr Leu Val Gln Gly Trp Leu Leu Cys
35 40 45

Thr Gly Gln Ser His Pro Ile Pro Thr Gln Ala Leu Cys Pro Ala Thr 50 55 60

Leu Ala Ser Ser Trp Pro Ser His Gln Ala Lys Gln Gly Arg Gly Met

70 75 65 Gly Met Pro Thr His Pro Tyr Gln Leu Cys Arg His Arg Thr Met His 90 85 Ser Ser Trp Glu Glu Ser Asp Glu Leu Leu Lys Ala Gln Glu Gly Pro 105 110 100 Ala Gln Trp Ser Ala Trp Gln Gly Gln Cys Phe Ser Gln Gly Arg Asp 120 125 Gly Gly Arg Leu Thr Arg Asp Pro Gln Gly Gly Arg Cys Ile Ser Val 135 140 Leu Phe Pro Asp Asn Lys Asp Val Ser Val Met Met Ser Glu Met Asp 155 160 145 150 Val Asn Val Ile Ala Gly Thr Leu Lys Leu Tyr Phe Arg Glu Leu Pro 170 Glu Pro Leu Phe Thr Asp Glu Phe Tyr Pro Asn Phe Ala Glu Gly lle 180 185 190 Gly Glu His Trp Arg Pro Trp Pro His Gly Arg Arg Leu Leu His Val 200 205 195 His Cys Cys Pro Trp Arg Leu 210 215

<210> 4180

<211> 783

<212> PRT

<213> Homo sapiens

<400> 4180

Met Leu Ser Asp Leu Thr Leu Gln Leu Arg Gln Arg Gln Glu Asn Thr
1 5 10 15

lle lle Glu Asn Pro Asp Val Pro Gln Asp Phe Gly Asn Gln Gly Ser 20 25 30

Thr Val Glu Ser Leu Cys Asp Asp Val Val Ser Val Leu Thr Val Leu
35 40 45

Cys Glu Lys Leu Gln Ala Ala lle Asn Asp Ser Gln Gln Leu Gln Leu 50 55 60

Leu Tyr Leu Glu Cys Ile Leu Ser Val Leu Ser Ser Ser Ser Ser Ser

65					70					75					80
Met	His	Leu	His	Arg	Arg	Phe	Thr	Asp	Leu	He	Trp	Lys	Asn	Leu	Cys
				85					90					95	
Pro	Ala	Leu	He	Val	lle	Leu	Gly	Asn	Pro	He	His	Asp	Lys	Thr	He
			100					105					110		
Thr	Ser	Ala	His	Thr	Ser	Ser	Thr	Ser	Thr	Ser	Leu	Glu	Ser	Asp	Ser
		115					120					125			
Ala	Ser	Pro	Gly	Val	Ser	Asp	His	Gly	Arg	Gly	Ser	Gly	Cys	Ser	Cys
	130					135					140				
Thr	Ala	Pro	Ala	Leu	Ser	Gly	Pro	Val	Ala	Arg	Thr	lle	Tyr	Tyr	He
145					150					155					160
Ala	Ala	Glu	Leu	Val	Arg	Leu	Val	G1 y	Ser	Val	Asp	Ser	Met	Lys	Pro
				165					170					175	
Val	Leu	Gln	Ser	Leu	Tyr	His	Arg	Val	Leu	Leu	Tyr	Pro	Pro	Pro	Gln
			180					185					190		
His	Arg	Val	Glu	Ala	He	Lys	He	Met	Lys	Glu	11e	Leu	Gly	Ser	Pro
		195					200					205			
Gln	Arg	Leu	Cys	Asp	Leu	Ala	Gly	Pro	Ser	Ser	Thr	Glu	Ser	Glu	Ser
	210					215					220				
Arg	Lys	Arg	Ser	He	Ser	Lys	Arg	Lys	Ser	His	Leu	Asp	Leu	Leu	Lys
225					230					235					240
Leu	lle	Met	Asp	Gly	Met	Thr	Glu	Ala	Cys	He	Lys	Gly	G1y	He	G1u
				245					250					255	
Ala	Cys	Tyr	Ala	Ala	Val	Ser	Cys	Val	Cys	Thr	Leu	Leu	Gly	Ala	Leu
			260					265					270		
Asp	Glu	Leu	Ser	Gln	Gly	Lys	Gly	Leu	Ser	Glu	Gly	Gln	Val	Gln	Leu
		275					280					285			
Leu	Leu	Leu	Arg	Leu	Glu	Glu	Leu	Lys	Asp	Gly	Ala	Glu	Trp	Ser	Arg
	290					295					300				
Asp	Ser	Met	Glu	He	Asn	Glu	Ala	Asp	Phe	Arg	Trp	G1n	Arg	Arg	Val
305					310					315					320
Leu	Ser	Ser	Glu	His	Thr	Pro	Trp	Glu	Ser	Gly	Asn	Glu	Arg	Ser	Leu
				325					330	,				335	
Asp	He	Ser	He	Ser	Val	Thr	Thr	Asp	Thr	Gly	Gln	Thr	Thr	Leu	G] u
			340					345					350		
Gly	Glu	Leu	Gly	Gln	Thr	Thr	Pro	Glu	Asp	His	Ser	Gly	Asn	His	Lvs

		355					360					365			
Asn	Ser	Leu	Lys	Ser	Pro	Ala	He	Pro	Glu	Gly	Lys	Glu	Thr	Leu	Ser
	370					375					380				
Lys	Val	Leu	Glu	Thr	Glu	Ala	Val	Asp	Gln	Pro	Asp	Val	Val	Gln	Arg
385					390					395					400
Ser	His	Thr	Va]	Pro	Tyr	Pro	Asp	He	Thr	Asn	Phe	Leu	Ser	Val	Asp
				405					410					415	
Cys	Arg	Thr	Arg	Ser	Tyr	Gly	Ser	Arg	Tyr	Ser	Glu	Ser	Asn	Phe	Ser
			420					425					430		
Val	Asp	Asp	Gln	Asp	Leu	Ser	Arg	Thr	Glu	Phe	Asp	Ser	Cys	Asp	Gln
		435					440					445			
Tyr	Ser	Met	Ala	Ala	Glu	Lys	Asp	Ser	Gly	Arg	Ser	Asp	Va]	Ser	Asp
	450					455					460				
11e	Gly	Ser	Asp	Asn	Cys	Ser	Leu	Ala	Asp	Glu	Glu	G1n	Thr	Pro	Arg
465					470					475					480
Asp	Cys	Leu	Gly	His	Arg	Ser	Leu	Arg	Thr	Ala	Ala	Leu	Ser	Leu	Lys
				485					490					495	
Leu	Leu	Lys	Asn	Gln	Glu	Ala	Asp	Gln	His	Ser	Ala	Arg	Leu	Phe	He
			500					505					510		
Gln	Ser	Leu	Glu	Gly	Leu	Leu	Pro	Arg	Leu	Leu	Ser	Leu	Ser	Asn	Val
		515					520					525			
Glu	Glu	Val	Asp	Thr	Ala	Leu	Gln	Asn	Phe	Ala	Ser	Thr	Phe	Cys	Ser
	530					535					540				
Gly	Met	Met	His	Ser	Pro	Gly	Phe	Asp	Gly	Asn	Ser	Ser	Leu	Ser	Phe
545					550					555					560
Gln	Met	Leu	Met	Asn	Ala	Asp	Ser	Leu	Tyr	Thr	Ala	Ala	His	Cys	Ala
				565					570					575	
Leu	Leu	Leu		Leu	Lys	Leu	Ser		Gly	Asp	Tyr	Tyr	Arg	Lys	Arg
			580					585					590		
Pro	Thr		Ala	Pro	Gly	Val		Lys	Asp	Phe	Met		Gln	Val	Gln
		595					600					605			
Thr		G1 y	Val	Leu	Met		Phe	Ser	Gln	Ala		He	Glu	Glu	Leu
	610			_		615					620				
	His	G1n	Val	Leu		Arg	Asn	Met	Leu		Glu	Ala	Gly	Tyr	Trp
625					630	_				635					640
Glv	Ser	Pro	Glu	Asp	Asn	Ser	Leu	Pro	Leu	He	Thr	Met	Leu	Thr	Asn

645 650 655 lle Asp Gly Leu Glu Ser Ser Ala Ile Gly Gly Gln Leu Met Ala Ser 660 665 670 Ala Ala Thr Glu Ser Pro Phe Ala Gln Ser Arg Arg Ile Asp Asp Ser 675 680 685 Thr Val Ala Gly Val Ala Phe Ala Arg Tyr lle Leu Val Gly Cys Trp 695 Lys Asn Leu Ile Asp Thr Leu Ser Thr Pro Leu Thr Gly Arg Met Ala 705 710 715 720 Gly Ser Ser Lys Glu Leu Ala Phe Ile Leu Gly Ala Glu Gly Ile Lys 725 730 Glu Gln Asn Gln Lys Glu Arg Asp Ala lle Cys Met Ser Leu Asp Gly 740 745 750 Leu Arg Lys Ala Ala Arg Leu Ser Cys Ala Leu Gly Val Ala Ala Asn 760 755 765 Cys Ala Ser Ala Leu Ala Gln Met Ala Ala Ala Ser Cys Val Gln 770 775 780

<210> 4181

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4181

Met Thr Asp Arg Asp Ala Gln Trp Arg Pro Leu Ser Arg Pro Leu Gly

1 5 10 15

Thr Arg Pro His Ala Pro Leu Ala Pro Ala Cys Val Arg Arg Pro Trp
20 25 30

Ala Gly Lys Ala Pro Gly Ser Val Ser Ser Val Ser Ser Gln Leu Pro
35 40 45

Ala Leu Gln Pro Pro Arg Leu Leu Val IIe Phe Cys Phe Lys Val Ala 50 55 60

Phe Cys Val Phe Phe Ser His Phe Ser Ser Ser Ser Ser Ser Cys His
65 70 75 80

Ile Tyr Phe Pro Pro Asn Thr Cys Pro Leu Asn Ser Ile Asp Ala Ile Leu Ser Leu Lys Lys Cys Tyr Ser His Thr Asp Ser Val Trp Ser Leu Gln Leu Asp <210> 4182 <211> 497 <212> PRT <213> Homo sapiens <400> 4182 Met Glu Ser Gly Leu Ser Trp Val Phe Leu Val Ala Leu Leu Arg Gly Val Gln Cys Gln Phe Gln Leu Val Glu Ser Gly Gly Val Val Gln Ser Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Tyr Gly Phe Met Leu Arg Thr Asn Leu Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Leu Ala Val Ser Ser Tyr Asp Gly His Thr Asp His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Val Ser Arg Asp Asn Ser Met Asn Arg Leu Tyr Leu Gln Met Arg Asn Leu Arg Pro Asp Asp Thr Ala Met Tyr His Cys Ala Arg Val Gly Tyr Asp Asp Asn Thr Val Arg Asp Leu Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser Ala Ser Pro Thr Ser Pro Lys Val Phe Pro Leu Ser Leu Cys Ser Thr

Gln Pro Asp Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe

Pro	Gln	Glu	Pro	Leu	Ser	Val	Thr	Trp	Ser	Glu	Ser	Gly	Gln	Gly	Val
			180					185					190		
Thr	Ala	Arg	Asn	Phe	Pro	Pro	Ser	Gln	Asp	Ala	Ser	Gly	Asp	Leu	Tyr
		195					200					205			
Thr	Thr	Ser	Ser	Gln	Leu	Thr	Leu	Pro	Ala	Thr	Gln	Cys	Leu	Ala	Gly
	210					215					220				
Lys	Ser	Val	Thr	Cys	His	Val	Lys	His	Tyr	Thr	Asn	Pro	Ser	Gln	Asp
225					230					235					240
Val	Thr	Val	Pro	Cys	Pro	Val	Pro	Ser	Thr	Pro	Pro	Thr	Pro	Ser	Pro
				245					250					255	
Ser	Thr	Pro	Pro	Thr	Pro	Ser	Pro	Ser	Cys	Cys	His	Pro	Arg	Leu	Ser
			260					265					270		
Leu	His	Arg	Pro	Ala	Leu	Glu	Asp	Leu	Leu	Leu	Gly	Ser	Glu	Ala	Asn
		275					280					285			
Leu	Thr	Cys	Thr	Leu	Thr	Gly	Leu	Arg	Asp	Ala	Ser	Gly	Val	Thr	Phe
	290					295					300				
Thr	Trp	Thr	Pro	Ser	Ser	Gly	Lys	Ser	Ala	Val	Gln	Gly	Pro	Pro	Asp
305					310					315					320
Arg	Asp	Leu	Cys	Gly	Cys	Tyr	Ser	Val	Ser	Ser	Val	Leu	Pro	Gly	Cys
				325					330					335	
Ala	Glu	Pro	Trp	Asn	His	G1 y	Lys	Thr	Phe	Thr	Cys	Thr	Ala	Ala	Tyr
			340					345					350		
Pro	Glu		Lys	Thr	Pro	Leu		Ala	Thr	Leu	Ser		Ser	Gly	Asn
		355					360					365			
Thr		Arg	Pro	Glu	Va]		Leu	Leu	Pro	Pro		Ser	Glu	Glu	Leu
	370					375					380				
	Leu	Asn	Glu	Leu		Thr	Leu	Thr	Cys		Ala	Arg	Gly	Phe	
385					390		_			395					400
Pro	Lys	Asp	Val		Val	Arg	Trp	Leu		Gly	Ser	Gln	Glu		Pro
	0.1			405	mı				410					415	
Arg	Glu	Lys		Leu	Thr	Trp	Ala		Arg	GIn	Glu	Pro	Ser	GIn	Gly
TC1	m)	T)	420	. 1		Tr.	6	425			., .	. 1	430	C.1	
lhr	Ihr		Phe	Ala	val	Ihr		He	Leu	Arg	Val		Ala	Glu	Asp
т	,	435	C.		TI	DI	440	C	14	17. 3	0.1	445	63	A 7	,
lrp		Lys	G1 y	Asp	Ihr		Ser	Cys	Met	Val		H1S	Glu	Ala	Leu
	450					455					460				

Pro Leu Ala Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro 465 470 470 470 475 480

Thr His Val Asn Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys 485 485 490 490 495

Tyr

<210> 4183

<211> 568

<212> PRT

<213> Homo sapiens

<400> 4183

Met Glu His Leu Trp Phe Phe Leu Leu Leu Leu Val Ala Pro Pro Arg

1 5 10 15

Arg Val Leu Ser Gln Val Arg Leu Lys Glu Trp Gly Ala Lys Thr Trp
20 25 30

Lys Pro Ser Glu Thr Leu Ser Leu Val Cys Arg Val Asp Gly Gly Pro 35 40 45

Phe Asn Leu Tyr Ser Trp Ser Trp 11e Arg Gln Gly Ser Gly Lys Gly
50 55 60

Leu Glu Trp Leu Gly Glu 11e Thr Pro Gly Gly Pro Thr His Ser Asn 65 70 75 80

Pro Ser Leu Ala Ser Arg Val Val Leu Ser Val Asp Thr Ser Lys Asn 85 90 95

His Val Ser Leu Lys Leu Leu Ser Leu Thr Val Ala Asp Thr Ala Val 100 105 110

Tyr Phe Cys Ala Ala Arg Asn Pro Ser Ala Gly Ala Ala Glu Tyr Trp 115 120 125

Gly Pro Gly Ser Pro Val Ile Val Ser Ser Ala Pro Thr Lys Ala Pro 130 135 140

Asp Val Phe Pro 11e 11e Ser Gly Cys Arg His Pro Lys Asp Asn Ser 145 150 155 160

Pro Val Val Leu Ala Cys Leu Ile Thr Gly Tyr His Pro Thr Ser Val 165 170 175

Thr	Val	Thr	Trp	Tyr	Met	Gly	Thr	Gln	Ser	Gln	Pro	Gln	Arg	Thr	Phe
			180					185					190		
Pro	Glu	Ile	Gln	Arg	Arg	Asp	Ser	Tyr	Tyr	Met	Thr	Ser	Ser	Gln	Leu
		195					200					205			
Ser	Thr	Pro	Leu	Gln	Gln	Trp	Arg	Gln	Gly	Glu	Tyr	Lys	Cys	Val	Val
	210					215					220				
Gln	His	Thr	Ala	Ser	Lys	Ser	Lys	Lys	Glu	He	Phe	Arg	Trp	Pro	Glu
225					230					235					240
Ser	Pro	Lys	Ala	Gln	Ala	Ser	Ser	Val	Pro	Thr	Ala	Gln	Pro	Gln	Ala
				245					250					255	
Glu	Gly	Ser	Leu	Ala	Lys	Ala	Thr	Thr	Ala	Pro	Ala	Thr	Thr	Arg	Asn
			260					265					270		
Thr	Gly	Arg	Gly	Gly	Glu	Glu	Lys	Lys	Lys	Glu	Lys	61u	Lys	Glu	Glu
		275					280					285			
Gln	Glu	Glu	Arg	Glu	Thr	Lys	Thr	Pro	Glu	Cys	Pro	Ser	His	Thr	Gln
	290					295					300				
Pro	Leu	Gly	Val	Tyr	Leu	Leu	Thr	Pro	Ala	Val	Gln	Asp	Leu	Trp	Leu
305					310					315					320
Arg	Asp	Lys	Ala	Thr	Phe	Thr	Cys	Phe	Val	Val	Gly	Ser	Asp	Leu	Lys
				325					330					335	
Asp	Ala	His	Leu	Thr	Trp	Glu	Val	Ala	Gly	Lys	Va1	Pro	Thr	Gly	Gly
			340					345					350		
Val	Glu	Glu	Gly	Leu	Leu	Glu	Arg	His	Ser	Asn	Gly	Ser	Gln	Ser	Gln
		355					360					365			
His	Ser	Arg	Leu	Thr	Leu	Pro	Arg	Ser	Leu	Trp	Asn	Ala	Gly	Thr	Ser
	370					375					380				
Val	Thr	Cys	Thr	Leu		His	Pro	Ser	Leu	Pro	Pro	Gln	Arg	Leu	Met
385					390					395					400
Ala	Leu	Arg	Glu	Pro	Ala	Ala	Gln	Ala	Pro	Val	Lys	Leu	Ser	Leu	Asn
				405		,			410					415	
Leu	Leu	Ala	Ser	Ser	Asp	Pro	Pro	Glu	Ala	Ala	Ser	Trp	Leu	Leu	Cys
			420					425					430		
Glu	Val	Ser	Gly	Phe	Ser	Pro	Pro	Asn	He	Leu	Leu	Met	Trp	Leu	Glu
		435					440					445			
Asp		Arg	Glu	Val	Asn	Thr	Ser	Gly	Phe	Ala		Ala	Arg	Pro	Pro
	450					455					460				

Pro Gln Pro Gly Ser Thr Thr Phe Trp Ala Trp Ser Val Leu Arg Val 475 465 470 Pro Ala Pro Pro Ser Pro Gln Pro Ala Thr Tyr Thr Cys Val Val Ser 490 485 His Glu Asp Ser Arg Thr Leu Leu Asn Ala Ser Arg Ser Leu Glu Val 500 505 510 Ser Tyr Leu Ala Met Thr Pro Leu Ile Pro Gln Ser Lys Asp Glu Asn 520 Ser Asp Asp Tyr Ser Thr Phe Asp Asp Val Gly Ser Leu Trp Thr Thr 535 540 Leu Ser Thr Phe Val Ala Leu Phe Ile Leu Thr Leu Leu Tyr Ser Gly 550 555 560 lle Val Thr Phe Ile Lys Val Lys 565

<210> 4184

<211> 478

<212> PRT

<213> Homo sapiens

<400> 4184

Met Asp Trp Thr Trp Thr Ile Leu Phe Leu Val Ala Gly Ala Thr Gly
1 5 10 15

Val Lys Ser Gln Ala Gln Leu Leu Gln Ser Gly Pro Glu Ala Glu Arg 20 25 30

Pro Gly Ala Ser Val Arg Val Ser Cys Arg Ala Ser Gly Tyr Asp Phe 35 40 45

Arg Thr Phe Ala Val Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu 50 55 60

Glu Trp Met Gly Trp Val Asn Thr Asp Gln Gly Asp Thr His Tyr Ala
65 70 75 80

Arg Arg Phe Gln Gly Arg Val Ser Met Thr Thr Asp Thr Ser Thr Ser 85 90 95

Thr Ala Tyr Leu Glu Leu Arg Arg Leu Thr Phe Asp Asp Thr Ala Val

Tyr	Phe	Cys	Ala	Arg	Leu	Leu	Leu	Pro	Asn	Gly	Arg	Asn	Trp	Ala	Gln
		115					120					125			
Trp	Lys	Asn	Tyr	Tyr	Ala	Phe	Asp	Val	Trp	Gly	His	G1 y	Thr	Thr	Val
	130					135					140				
Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala
145					150					155					160
Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu
				165					170					175	
Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn	Ser	G1 y
			180					185					190		
Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser
		195					200					205			
Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu
	210					215					220				
G1 y	Thr	Gln	Thr	Tyr	He	Cys	Asn	Val	Asn	His	Lys	Pro	Ser	Asn	Thr
225					230					235					240
Lys	Val	Asp	Lys	Lys	Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys	Thr		Thr
				245					250					255	
Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe
			260					265					270		
Leu	Phe		Pro	Lys	Pro	Lys		Thr	Leu	Met	He		Arg	Thr	Pro
		275					280					285			
Glu		Thr	Cys	Val	Val	Va]	Asp	Val	Ser	His		Asp	Pro	Glu	Val
	290					295					300				
	Phe	Asn	Trp	Tyr		Asp	Gly	Val	Glu		His	Asn	Ala	Lys	
305		_			310					315					320
Lys	Pro	Arg	Glu		Gln	Tyr	Asn	Ser		Tyr	Arg	Val	Val		Val
	mı			325	0.1		ar.	,	330	0.1		0.1	Æ.	335	0
Leu	Thr	Val		His	GIn	Asp	Irp		Asn	ωгу	Lys	6Ju		Lys	Cys
	V 1	C	340	,	41.	1	D	345	D	т 1	C1	1	350	71.	C
Lys	vai		Asn	Lys	Ala	Leu		Ala	Pro	11e	GJU		ınr	116	Sei
,	A 7	355	C1	C1	D	Λ	360	D	C1.	v i	т.	365		D	D
Lys		Lys	ыу	OIB	L 1.0	Arg 375	010	L1.0	OTU	vai		ınr	Leu	1.0	F1.C
San	370	Aon	Clu	Lou	Thr		Acr	Gla	Vo.1	San	380	The	Cvc	Lou	Val
261	vi 8	лър	Glu	Leu	200	Lys	USII	OIH	val	261	reu	1111	Cys	Leu	400

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys

<210> 4185

<211> 548

<212> PRT

<213> Homo sapiens

<400> 4185 Met Ser Ala Gly Asp Ala Val Cys Thr Gly Trp Leu Val Lys Ser Pro Pro Glu Arg Lys Leu Gln Arg Tyr Ala Trp Arg Lys Arg Trp Phe Val Leu Arg Arg Gly Arg Met Ser Gly Asn Pro Asp Val Leu Glu Tyr Tyr Arg Asn Lys His Ser Ser Lys Pro 11e Arg Val 11e Asp Leu Ser Glu Cvs Ala Val Trp Lvs His Val Gly Pro Ser Phe Val Arg Lvs Glu Phe Gln Asn Asn Phe Val Phe lle Val Lys Thr Thr Ser Arg Thr Phe Tyr Leu Val Ala Lys Thr Glu Gln Glu Met Gln Val Trp Val His Ser Ile Ser Gln Val Cys Asn Leu Gly His Leu Glu Asp Gly Ala Ala Asp Ser

Met Glu Ser Leu Ser Tyr Thr Pro Ser Ser Leu Gln Pro Ser Ser Ala

ser	ser	Leu	Leu	1 DT.	Ата	mis	ніа	нта	ser.	261.	Ser	Leu	110	Arg	ASP
145					150					155					160
Asp	Pro	Asn	Thr	Asn	Ala	Val	Ala	Thr	Glu	Glu	Thr	Arg	Ser	Glu	Ser
				165					170					175	•
Glu	Leu	Leu	Phe	Leu	Pro	Asp	Дуr	Leu	Val	Leu	Ser	Asn	Cys	Glu	Thr
			180					185					190		
G1 y	Arg	Leu	His	His	Thr	Ser	Leu	Pro	Thr	Arg	Cys	Asp	Ser	Trp	Ser
		195					200					205			
Asn	Ser	Asp	Arg	Ser	Leu	Glu	Gln	Ala	Ser	Phe	Asp	Asp	Va]	Phe	Val
	210					215					220				
Asp	Cys	Leu	Gln	Pro	Leu	Pro	Ser	Ser	His	Leu	Val	His	Pro	Ser	Cys
225					230					235					240
His	Gly	Ser	Gly	Ala	Gln	Glu	Val	Pro	Ser	Ser	Arg	Pro	Gln	Ala	Ala
				245					250					255	
Leu	He	Trp	Ser	Arg	Glu	11e	Asn	Gly	Pro	Pro	Arg	Asp	His	Leu	Ser
			260					265					270		
Ser	Ser	Pro	Leu	Leu	Glu	Ser	Ser	Leu	Ser	Ser	Thr	He	Gln	Val	Asp
		275					280					285			
Lys	Asn	Gln	Gly	Ser	Leu	Pro	Cys	Gly	Ala	Lys	Glu	Leu	Asp	He	Met
	290					295					300				
Ser	Asn	Thr	Pro	Pro	Pro	Arg	Pro	Pro	Lys	Pro	Ser	His	Leu	Ser	Glu
305					310					315					320
Arg	Arg	Gln	Glu	Glu	Trp	Ser	Thr	His	Ser	G1 y	Ser	Lys	Lys	Pro	Glu
				325					330					335	
Cys	Thr	Leu	Val	Pro	Arg	Arg	lle	Ser	Leu	Ser	Gly	Leu	Asp	Asn	Met
			340					345					350		
Arg	Thr	Trp	Lys	Ala	Asp	Val	Glu	Gly	Gln	Ser	Leu	Arg	His	Arg	Asp
		355					360					365			
Lys		Leu	Ser	Leu	Asn		Pro	Cys	Arg	Phe		Pro	Met	Tyr	Pro
	370					375					380				
	Ala	Ser	Ala	Ser		Glu	Asp	Ser	Tyr		Pro	Met	Ser	Pro	
385					390					395					400
Ala	G1 y	Ala	Ser		Leu	Gly	Pro	His		Ser	Pro	Asp	Asp		He
			_	405	_		_	_	410					415	
Pro	Met	Asn		Gly	Ser	He	Ser		Pro	Leu	Pro	Glu		Pro	Ala
			420					425					430		

Asn	Leu	Glu	Pro	Pro	Pro	Val	Asn	Arg	Asp	Leu	Lys	Pro	Gln	Arg	Lys
		435					440					445			
Ser	Arg	Pro	Pro	Pro	Leu	Asp	Leu	Arg	Asn	Leu	Ser	He	lle	Arg	Glu
	450					455					460				
His	Ala	Ser	Leu	Thr	Arg	Thr	Arg	Thr	Val	Pro	Cys	Ser	Arg	Thr	Ser
465					470					475					480
Phe	Leu	Ser	Pro	Glu	Arg	Asn	G1 y	He		Ser	Ala	Arg	Phe		Ala
				485					490					495	
Asn	Pro	Val		Arg	Glu	Asp	Glu		Ser	Tyr	lle	Glu		Lys	Leu
_	-		500					505	-	** 1	0.1		510	0.1	
Leu	Leu		Glu	Glu	GIn	Arg		Asp	Tyr	Val	Gln		Asp	Glu	GIn
	r.	515			C.I.	6	520	,	6.1	61	Tr.	525		0.1	
Lys		61n	Ala	Leu	GIn		lhr	Lys	GIn	61u		Inr	Asp	GIU	Arg
C1	530	1	Val			535					540				
545	Ser	Lys	Vall												
949															
<210	0> 41	186													
	1> 30														
<212	2> PF	RT													
<21:	3> He	omo s	sapie	ens											
<400	0> 41	186													
Met	Asn	11e	Val	Phe	Ser	Arg	Asp	Ser	Gln	Val	Arg	Val	Met	Glu	Asn
1				5					10					15	
Thr	Val	Ala	Asn	Thr	Glu	Lys	Tyr	Phe	Gly	Gln	Phe	Cys	Ser	Leu	Leu
			20					25					30		
Ala	Ala	Tyr	Thr	Arg	Lys	Thr	Ala	Arg	Leu	Arg	Asp	Lys	Ala	Asp	G]n
		35					40					45			
Leu		Lys	Gln	Leu	He		Phe	Ala	Asn	Ser		Asn	Pro	Glu	Leu
	50					55					60				
	Ala	Thr	Met	Arg		Phe	Ala	Glu	Asp		Ala	Lys	Val	Gln	
65					70					75					80

Tyr Arg Gln Ala Gln Val Glu Arg Leu Glu Thr Lys Val Val Asn Pro

Leu	Lys	Leu	Tyr	Gly	Ala	Gln	He	Lys	Gln	Thr	Arg	Ala	Glu	Пе	Lys
			100					105					110		
Lys	Phe	Lys	His	Val	Gln	Asn	His	Glu	Пе	Lys	Gln	Leu	Glu	Lys	Leu
		115					120					125			
Glu	Lys	Leu	Arg	Gln	Lys	Ser	Pro	Ser	Asp	Gln	Gln	Met	11e	Ser	Gln
	130					135					140				
Ala	Glu	Thr	Arg	Val	Gln	Arg	Ala	Ala	Val	Asp	Ser	Ser	Arg	Thr	Thr
145					150					155					160
Leu	Gln	Leu	Glu	Glu	Thr	Val	Asp	Gly	Phe	Gln	Arg	Gln	Lys	Leu	Lys
				165					170					175	
Asp	Leu	Gln	Lys	Phe	Phe	Cys	Asp	Phe	Val	Thr	lle	Glu	Met	Val	Phe
			180					185					190		
His	Ala	Lys	Ala	Val	Glu	Va]	Tyr	Ser	Ser	Ala	Phe	Gln	Thr	Leu	Glu
		195					200					205			
Lys	Tyr	Asp	Leu	Glu	Arg	Asp	Leu	Leu	Asp	Phe	Arg	Ala	Lys	Met	Gln
	210					215					220				
Gly	Val	Tyr	Gly	His	Tyr	Asp	Thr	Arg	Leu	Leu	Ala	Asn	Thr	Ser	Pro
225					230					235					240
Pro	Pro	Ser	Val	Leu	Gln	Ser	Leu	Ala	Ser	Gln	Gly	Thr	Leu	Gln	Val
				245					250					255	
G1n	Leu	Ser	Arg	Ala	Asn	Glu	Asp	Pro	Glu	His	Pro	His	Ala	Asn	His
			260					265					270		
Gly	Arg	Phe	Ser	Leu	Cys	Glu	Trp	Val	Val	Lys	Gly	GIn	Pro	Ala	His
		275					280					285			
Cys	Va]	Cys	Gly	GIn	G1 y	Gly	His	Leu	Met	Leu	Pro	Gly	llis	Ser	Leu
	290					295					300				

<210> 4187

<211> 156

<212> PRT

<213≻ Homo sapiens

<400> 4187

Met Asn Ala Ala Ser Pro Leu Gly Ala Trp Val Arg Val Trp Arg His 1 5 10 15 Gln Ser Trp Pro Val Cys Asp Ser Pro Gly Ser Ser Thr Ser Ser Leu 25 Ala Pro Gly Pro Glu Pro Gly Pro Gln Pro Ala Leu His Val Gln Ala 45 Gln Val Asn Asn Ser Asn Asn Lys Lys Gly Thr Phe Thr Asp Asp Leu 50 55 His Lys Leu Val Asp Glu Trp Thr Ser Lys Thr Val Gly Ala Ala Gln 70 75 Leu Lys Pro Thr Leu Asn Gln Leu Lys Gln Thr Gln Lys Leu Gln Asp 85 90 Met Glu Ala Gln Ala Gly Trp Ala Ala Pro Gly Glu Ala Arg Ala Met 100 105 110 Thr Ala Pro Arg Ala Gly Val Gly Met Pro Arg Leu Pro Pro Ala Pro 115 120 125 Gly Pro Leu Ser Thr Thr Val 11e Pro Gly Ala Ala Pro Thr Leu Ser 130 135 140 Val Pro Thr Pro Asp Pro Glu Ser Glu Lys Pro Asp 150

<210> 4188

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4188

Met Pro Lys Glu Leu Glu Ser Gly Ser His Glu Ser Pro Asp Asp Ser 1 5 10 15

Ser Ser Thr Ala Gln Thr Leu Glu Leu Leu Cys His Leu Asp Asn Thr 20 25 30

Ala His Gly Asn Met Ala Cys Val Val Trp Glu Pro Met Gly Asp Gly
35 40 45

Lys Lys lle lle Ser Leu Ala Asp Asn His lle Leu Leu Trp Asp Leu 50 55 60

Gln Glu Ser Ser Ser Gln Ala Val Leu Ala Ser Ser Ala Ser Leu Glu 65 70 75 80 Gly Lys Gly Gln Leu Lys Phe Thr Ser Gly Arg Trp Ser Pro His His

85

Asn Cys Thr Gln Val Ala Thr Ala Asn Asp Thr Thr Leu Arg Gly Trp

100

Asp Thr Arg Ser Met Arg Ser Thr Ala

115

<210> 4189

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4189

 Met Ala Phe Val Lys Ser Gly Trp Leu Leu Arg Gln Ser Thr 11e Leu

 1
 5
 10
 15

 Lys Arg Trp Lys Lys Asn Trp Phe Asp Leu Trp Ser Asp Gly His Leu
 20
 25
 30

 Ile Tyr Tyr Asp Asp Gln Thr Arg Gln Asn Ile Glu Asp Lys Val His
 35
 40
 45

Met Pro Met Asp Cys Ile Asn Ile Arg Thr Gly Gln Glu Cys Arg Asp 50 55 60

Thr Gln Pro Pro Asp Gly Lys Ser Lys Asp Cys Met Leu Gln 11e Val 65 70 75 80

Cys Arg Asp Gly Lys Thr Ile Ser Leu Cys Ala Glu Ser Thr Asp Asp 85 90 95

Cys Leu Ala Trp Lys Phe Thr Leu Gln Asp Ser Arg Thr Asn Thr Ala 100 105 110

Tyr Val Gly Ser Ala Val Met Thr Asp Glu Thr Ser Val Val Ser Ser 115 120 125

Pro Pro Pro Tyr Thr Ala Tyr Ala Ala Pro Ala Pro Glu Val Gly Arg 130 135 140

Thr Leu Ser Leu Gln Gln Ala Tyr Gly Tyr Gly Pro Tyr Gly Gly Ala 145 150 155 160

Tyr Pro Pro Gly Thr Gln Val Val Tyr Ala Ala Asn Gly Gln Ala Tyr 165 170 175 Ala Val Pro Tyr Gln Tyr Pro Tyr Ala Gly Leu Tyr Gly Gln Gln Pro 180 185 190

Ala Asn Gln Val Ile Ile Arg Glu Arg Tyr Arg Asp Asn Gly Ser Asp 195 200 205

Leu Ala Leu Gly Met Leu Ala Gly Ala Ala Thr Gly Met Ala Leu Gly
210 215 220

Ser Leu Phe Trp Val Phe

225 230

<210> 4190

<211> 120

<212> PRT

<213> Homo sapiens

<400> 4190

Met Lys Ser Ala Val Ile Thr Pro Cys Ser His Phe Phe His Ala Gly

1 5 10 15

Cys Leu Lys Lys Trp Leu Tyr Val Gln Glu Thr Cys Pro Leu Cys His 20 25 30

Cys His Leu Lys Asn Ser Ser Gln Leu Pro Gly Leu Gly Thr Glu Pro 35 40 45

Val Leu Gl
n Pro His Ala Gly Ala Glu Gl
n As
n Val Met Phe Gl
n Glu 50 55 60

Gly Thr Glu Pro Pro Gly Gln Glu His Thr Pro Gly Thr Arg Ile Gln
65 70 75 80

Glu Gly Ser Arg Asp Asn Asn Glu Tyr lle Ala Arg Arg Pro Asp Asn 85 90 95

Gln Glu Gly Ala Phe Asp Pro Lys Glu Tyr Pro His Ser Ala Lys Asp 100 105 110

Glu Ala His Pro Val Glu Ser Ala 115 120 <211> 163 <212> PRT <213> Homo sapiens

<400> 4191

The Pro Asp Val Ala Pro Asp See Asp Cla Asp Cyc Asp Pro Cly Cly

Thr Pro Asn Val Ala Pro Arg Ser Asn Gln Arg Cys Asn Pro Gly Gly 50 55 60

Tyr Leu Ser Gly Gly Val Ser Leu Cys Ala Ser His Ser Gln Pro Ala 65 70 75 80

Ala Leu Pro Asn Leu Gly Arg Leu Gln Lys Lys Leu Leu Gln Thr Arg 85 90 95

Cys Lys Gly Arg Arg Met Cys Pro Lys Ala Gly Asp Gln Thr Gly Gly
100 105 110

Ala Phe Cys Met Cys Asp Val Ser Gly Gly Gly Gly Glu Cys Val Ser 115 120 125

Gly Ser Gly Gly Gly Gly Glu Ser Gly Arg Lys Thr Gly Thr Thr Ser 130 135 140

Ala Met Lys Asp Pro Arg Val Leu Lys Cys Lys Leu Arg Val Thr Asn 145 150 155 160

Asp Leu His

<210> 4192

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4192

Met Gly Phe His His Phe Gly Gln Ala Gly Leu Gln Leu Val Thr Ser

10 Gly Asp Leu Ser Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val 25 Ser His Cys Thr Gln Pro Trp Trp Val Phe Cys Arg Glu Gln Phe Gln 35 40 45 Lys Asp Phe Trp Trp Gln Pro Leu Ser Leu Trp Leu Thr Asp Met Gly 55 60 Lys Ile Ile Gln Lys Thr Tyr Leu Arg Gln Asp Val Glu Asn Ser Thr 65 70 75 Val Ile Ser Leu Tyr Leu Asn Thr Thr Ser Asn Asn Val Tyr Asp Arg 85 90 95 Val Asp His Phe His Glu Gly Ile Thr Ser Leu Ala Val 100 105

<210> 4193

<211> 976

<212> PRT

<213> Homo sapiens

<400> 4193

Met Asn Thr Gln Lys Gly Ser Leu Thr Ile Asn Val His Arg Gly Ser 1 5 10 15 Leu Ala Met Ser Ile Gln Arg Gly Ser Leu Val Pro Arg Asp Met Asp 20 $\cdot 25$ 30

Ser Ser Gly Arg Asp Met Gln Leu Arg Val 11e Pro Ala Glu Val Lys

35 40 45

Phe Leu Asp Thr Met Ala Gly Arg Val Tyr Arg Leu Pro 11e Thr Val
50 . 55 60

His Asn Ile Cys Arg Trp Asn Gln Lys Ile Arg Phe Lys Glu Pro Val 65 70 75 80

Lys Pro Gln Phe Lys Leu Met Leu Thr Ser Leu Asp Lys Glu Leu Ala 85 90 95

Ser Gly Leu Gln Met Thr Ala Met Val Glu Tyr His Pro Asp Lys Asp 100 . 105 110

Glu Asp Thr Phe Asp Arg Leu Leu Ile Ser Ile Glu Asn Lys Thr Thr

		115					120					125			
Glu	He	Pro	Leu	lle	Gly	Leu	He	Pro	Ser	Cys	Gln	Leu	Glu	lle	Glu
	130					135					140				
Ser	Val	Val	Asn	Phe	Gly	Thr	Leu	Val	Ala	Asn	Ser	Lys	Val	Tyr	Ser
145					150					155					160
Lys	Glu	He	Thr	He	Thr	Asn	His	Gly	Lys	Ala	Pro	Gly	He	Phe	Lys
				165					170					175	
Ala	Glu	Tyr	His	Gly	Gln	Leu	Pro	Hle	Leu	Ile	Phe	Pro	Thr	Ser	Gly
			180					185					190		
lle	Val	Asp	Ala	Lys	Ser	Ser	Met	Val	lle	Lys	Val	Asp	Phe	Cys	Ala
		195					200					205			
Asp	Gln	Pro	Arg	lle	Val	Asp	Glu	Glu	Ala	He	Val	lle	Leu	Gln	Gly
	210					215					220				
Gln	Pro	Glu	Met	Leu	Leu	Ser	He	Lys	Ala	His	Met	Val	Glu	Gln	Пе
225					230					235					240
He	Glu	Leu	Leu	Ser	Met	Ser	Ser	Asp	Arg	Arg	Leu	Glu	Cys	He	His
				245					250					255	
Phe	Gly	Pro	Val	Phe	Phe	Gly	Ser	Ser	Lys	lle	Lys	His	Ala	Arg	Val
			260					265					270		
Tyr	Asn	Asn	Ser	Pro	Glu	Pro	lle	Asn	Trp	Val	Ala	He	lle	Gln	Asp
		275					280					285			
Asp	Ala	Val	Gly	Glu	Glu	Leu	Gly	Thr	Asp	He	Gln	Gln	Arg	Thr	Asp
	290					295					300				
He	Ala	Leu	Asn	Asn	Leu	Thr	Tyr	He	Arg	Lys	He	Lys	Asn	He	Asp
305					310					315					320
Thr	Thr	He	He	He	Ser	Cys	Leu	Pro	Asn	Glu	Gly	Thr	Leu	Gln	Pro
				325					330					335	
Tyr	Gln	Lys	Thr	Val	He	Thr	Phe	Cys	Phe	Thr	Pro	Lys	Leu	Met	Ala
			340					345					350		
Va]	Gly	Lys	Lys	Asp	He	Gly	Pro	Ser	Tyr	Arg	Gln	Asp	Tyr	Ala	Leu
		355					360					365			
Phe	Leu	Arg	Phe	Glu	Ser	Val	Gly	Ser	Lys	Asp	Gly	Phe	Leu	Arg	Asp
	370					375					380				
	Asp	Tyr	Lys	Thr		Lys	Ser	Glu	Arg	Phe	Gln	Lys	Val	Glu	Leu
385					390					395					400
Ala	Leu	Thr	Gly	Thr	Gly	Leu	Pro	Val	Leu	Leu	Gln	Phe	Asp	Pro	Glv

				405					410					415	
Pro	Val	Leu	Asn	Phe	Lys	Pro	Cys	Phe	Met	Gly	Glu	Arg	Ser	Glu	lle
			420					425					430		
Gln	Cys	He	lle	Lys	Asn	Gln	Cys	Glu	Leu	Leu	Pro	Val	Thr	Tyr	His
		435					440					445			
Phe	Lys	Lys	Thr	Ala	Asn	Phe	Glu	lle	Asp	Pro	Glu	Lys	G1 y	Lys	He
	450					455					460				
Thr	Gly	Gly	Gly	Met	Val	Asp	Val	Met	Cys	Ser	Phe	Val	Pro	His	Gln
465					470					475					480
Leu	Gly	Val	Phe	Lys	Val	Lys	Gln	Met	Ile	G1u	He	Ile	Gly	Leu	Val
				485					490					495	
Ala	Glu	Glu	Asp	Leu	Gln	Ser	Leu	Ser	Val	Lys	Ser	Phe	His	His	Val
			500					505					510		
Tyr	Leu	Ala	Phe	Asn	Ser	11e	Cys	Lys	Thr	Ser	Thr	Lys	Lys	Val	Val
		515					520					525			
Met	Lys	Phe	Asp	Pro	Gly	He	Leu	Pro	Ser	He	Arg	Asn	Pro	Thr	Gly
	530					535					540				
Lys	Phe	Val	Val	Lys	Asp	Leu	Ala	Lys	Arg	Lys	Asn	Tyr	Ala	Pro	Val
545					550					555					560
Ala	Met	Leu	Gln	Ser	Ala	Met	Thr	Arg		His	Asn	His	Arg	Ser	Cys
				565					570					575	
Glu	Glu	Pro		Lys	Asp	Met	Leu		Ala	Phe	Pro	Asn	Asp	Arg	Ala
			580					585					590		
Ala	Thr		Arg	Ser	Lys	Asp		His	Lys	His	Phe	Arg	Pro	He	Phe
	_	595					600					605			
Thr		Val	Pro	Arg	Phe		Tyr	Val	Asn	His			Ala	Tyr	Thr
T I	610 Di	61	,	0.1	6.1	615					620		_	_	
	Phe	GIu	Lys	Gln		Lys	Lys	Leu	His		Asn	Tyr	Tyr	Ala	
625 T	,		т		630	C	17 1			635					640
ıyr	Leu	Lys	ıyr	Leu	Arg	Ser	vai	Arg		GIn	Lys	Lys	GIn		Glu
A ~	C1	Λ	Max	645	C	т	Α		650		T 3	C1	,	655	Б
Arg	GIU	Arg	мет 660	Tyr	Ser	ıyr	Asp		Inr	Asp	11e	GIŸ		Glu	Pro
C1	Con	C1		1	C	D	C	665	C	C1	. 1	CT.	670	61	61
оту	J61	675	ren	Lys	ser	110	5er 680	ren	ser	oru	RIA		116	olu	GIU
Glu	Len		Sor	Ala	Λla	Aen		ΠA	Δκα	A1 a	Acn	685	Lau	Lou	Th.
	1. U U	UU1	UUL	MIG	111 CI	HOIL	OCI	115	MK	Λ 1d	ASII	1112	1.60	ı.eu	1111

	Arg	6.1													
		61 y	He	Ala	Ser	Gln	Glu	Glu	Glu	Ser	Val	Arg	Arg	Lys	Val
705					710					715					720
Leu	Lys	Gly	Leu	Lys	Ser	Glu	Pro	Ser	Thr	Pro	Gln	Glu	Lys	His	Asp
				725					730					735	
Cys	Ser	Leu	Met	Leu	Thr	Pro	Lys	Gln	11e	His	G1n	Val	Пe	Val	Gly
			740					745					750		
Pro	Ser	Val	Leu	Asn	Phe	Gly	Asn	He	Cys	Val	Asn	Ser	Pro	Asn	Thr
		755					760					765			
His	Leu	Leu	His	Val	He	Asn	Met	Leu	Pro	Met	His	Val	Leu	Leu	G1n
	770					775					780				
Leu	Asp	Thr	Asp	Leu	Glu	Glu	Leu	Gln	Lys	Thr	Asn	Gln	Phe	Ser	Tyr
785					790					795					800
Val	He	Leu	Pro	Thr	Ser	Ser	Thr	Tyr	He	Ser	Met	Val	Phe	Asp	Ser
				805					810					815	
Pro	Thr	He	Gly	Lys	Phe	Trp	Lys	Ser	Phe	Thr	Phe	Thr	Val	Asn	Asn
			820					825					830		
Val	Pro	Ser	Gly	His	He	Leu	Val	Val	Ala	Val	Val	Gln	Pro	Val	Thr
		835					840					845			
Leu	Glu	Leu	Ser	Ser	Asn		Leu	Val	Leu	Arg	Pro	Arg	Gly	Phe	Phe
	850					855					860				
	Lys	Thr	Cys	Phe	Arg	G1 y	Thr	Val	Arg	Leu	Tyr	Asn	Arg	Gln	
865					870					875					880
Cys	Cys	Ala	Gln		Gln	Trp	Gln	Pro		Asn	Thr	Gly	Arg	-	He
		_		885		_			890					895	
Ala	Phe	Ser		Cys	Pro	Ser	Lys		Thr	Val	Glu	Ala		Ser	Ser
	0.1		900	., .	m)	æ	0.1	905	0.1	T.)		_	910	0.1	0.1
Leu	Glu		61u	Val	Ihr	Trp		GIn	Gly	Phe	Ser		Pro	Glu	Glu
C1	C1	915	11	,	11.	17 1	920 DI	C1	C1		. 1	925		,	
GIŸ	Glu	Pne	116	Leu	піѕ		rne	GIN	GIY	Asn		Leu	Lys	Leu	Lys
Cuo	930 Val	110	шіс	Vol.	116	935	Dha	Lau	C1	u; o	940	Dho	Cua	Dha	C1
945	Va]	лта	1115	ıaı	950	116	THE	Leu	014	955	91 y	тие	CyS	тпе	960
	Tyr	61	ىنم [Val		Tur	The	ينم ا	Val		114	Val	Thr	Tur	
ory	1 3 1	01u	Leu	965	0.1 y	1 9 1	1111	Leu	970	1 9 1	116	, a1	1111	975	116

<210> 4194 <211> 137 <212> PRT <213> Homo sapiens <400> 4194 Met Ser Thr His His Gln Asn Pro Ala Asn Gly Pro Pro Leu Pro Pro Ser Pro Asp Ala Glu Met Val Met Gly Ser Trp Arg Val Gly Ser Glu 20 25 Met Lys Gly Thr Pro Gln Trp Ala Ala Gly Pro 11e Phe Pro Lys Pro 40 Cys His Tyr Leu Cys Glu Gly Gly Gln Val Ala Glu Gly Ser Gly Cys 50 55 60 Arg Leu Leu Tyr Pro Leu Cys Leu Lys His Pro Pro His Arg Ala Leu 70 75 Val Phe Thr Arg Phe Val Leu Asp Ser Leu Asn Gly Asn Arg lle Pro 90 Trp Leu Arg Ala Lys Thr Thr Tyr Gln Cys Pro Cys Pro Phe Gln 100 105 110 Leu Thr Leu Ser Ser Leu Arg Ser Ser Leu Ser Leu Trp Lys Gly His 115 120 125 Pro Ser Gln Gly Arg Asn Ala Trp Ser 130 135

<210> 4195

<211> 173

<212> PRT

<213> Homo sapiens

<400> 4195

Met Lys Ser Arg Phe Val Asp Ser Gly Glu Met Ser Glu Ser Phe Pro

1 5 10 15

Tyr Arg Thr Lys Ala Leu Phe Ala Phe Glu Glu Ile Asp Gly Val Asp

20 25 Val Cys Phe Phe Gly Met His Val Gln Glu Tyr Gly Ser Asp Cys Pro 40 Pro Pro Asn Thr Arg Tyr Val Thr Gly His 11e Trp Ala Cys Pro Pro 50 55 60 Ser Glu Gly Asp Asp Tyr Ile Phe His Cys His Pro Pro Asp Gln Lys 70 75 Ile Pro Lys Pro Lys Arg Leu Gln Glu Trp Tyr Lys Lys Met Leu Asp 85 90 Lys Ala Phe Ala Glu Arg Ile Ile His Asp Tyr Lys Asp Ile Phe Lys 100 105 110 Gln Ala Thr Glu Asp Arg Leu Thr Ser Ala Lys Glu Leu Pro Tyr Phe 120 Glu Gly Asp Phe Trp Pro Asn Val Leu Glu Glu Ser Ile Lys Glu Leu 130 135 Glu Glu Glu Glu Glu Arg Lys Lys Glu Glu Ser Thr Ala Ala Ser 150 155 160 Glu Thr Thr Glu Gly Ser Gln Gly Asp Ser Lys Asn Ala 165 170

<210> 4196

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4196

Met Pro Leu Ala Leu Leu Gln Met Arg Pro Pro Lys Met Ser Pro Asp 1 5 10 15

Val Thr Thr Cys Pro Leu Gly Gly Lys Ser Ala Pro Val Glu Ser Thr
20 25 30

Gly Ser Phe Leu His Ser Pro Asp Leu Ala Ala Cys Thr Gly His Phe 35 40 45

Ser Glu Val Phe Gln Cys Thr Leu Cys Pro Gly Tyr Leu Gly His Ser 50 55 60

Thr Leu Ala Gln Arg Gly Trp Leu Thr Cys Leu Arg Arg Cys Phe Leu

65					70					75					80
G1 y	Asp	Ala	Val	Ala	Ser	Phe	Leu	Ser	Val	Leu	Val	11e	Phe	Leu	Ser
				85					90					95	
Ser	Leu	Pro	Pro	Tyr	lle	Pro	His	Asp	Arg	Cys	Val	Tyr	Val	His	Thr
			100					105					110		
Ser	Ala	Ser	Leu	His	Ser	Λla	Pro	Cys	Gln	Val	Ser	Cys	Gln	Ser	Val
		115					120					125			
Pro	Leu	Pro	Ser	Gly	Ser	Ala	Thr	Ser	Cys	Thr	Asp	Ser	Thr	Thr	Ala
	130					135					140				
His	Thr	Cys	Val	Cys	Pro	Ala	Val	Asp	Pro	Pro	Pro	Lys	Ala	Ala	Ser
145					150					155					160
Ala	Asp	Ser	Arg	Glu	Pro	Ser	Thr	Leu	Lys	Ser	Gly	Gln	Ala	Gly	lle
				165					170					175	
Ala	Thr	Cys	Leu	Ser											
			180												
		,													
<210)> 4:	197													
<211	> 13	358													
<212	2> PI	RT													
<213	3> Ho	omo s	sapi	ens											
<400)> 41	197													
Met	Gln	Asp	Ser	Lys	Gly	Arg	Leu	His	Ala	Leu	Thr	Ser	Val	Ser	Arg
1				5					10					15	
Glu	Gln	He	Val	Gly	Gly	Asp	Val	Gln	Gly	Tyr	Arg	Trp	Met	Phe	Glu
			20					25					30		
Thr	Gln	Pro	Leu	Asp	Gln	Leu	Gly	Arg	Ser	Pro	Ser	Thr	Ile	Asp	Val
		35					40					45			
Va]	Arg	G1y	He	Thr	Arg	Gln	Glu	Val	Val	Ala	Gly	Asp	Val	Gly	Thr
	50					55					60				
Ala	Arg	Trp	Leu	Phe	Glu	Thr	Gln	Pro	Leu	Glu	Met	He	His	Gln	Arg
65					70					75					80
Glu	Gln	Gln	Glu	Arg	Gln	Lys	Glu	Glu	Gly	Lys	Ser	Gln	Gly	Asp	Pro
				85					90					95	
Gln	Pro	Glu	Ala	Pro	Pro	Lys	Gly	Asp	Val	G1n	Thr	lle	Arg	Trp	Leu

			100					105					110		
Phe	Glu	Thr	Cys	Pro	Met	Ser	Glu	Leu	Ala	Glu	Lys	Gln	Gly	Ser	Glu
		115					120					125			
Val	Thr	Asp	Pro	Thr	Ala	Lys	Ala	Glu	Ala	Gln	Ser	Cys	Thr	Trp	Met
	130					135					140				
Phe	Lys	Pro	Gln	Pro	Val	Asp	Arg	Pro	Val	Gly	Ser	Arg	Glu	Gln	His
145					150					155					160
Leu	G1n	Val	Ser	Gln	Val	Pro	Ala	Gly	Glu	Arg	Gln	Thr	Asp	Arg	His
				165					170					175	
Val	Phe	Glu	Thr	Glu	Pro	Leu	Gln	Ala	Ser	Gly	Arg	Pro	Cys	Gly	Arg
			180					185					190		
Arg	Pro	Val	Arg	Tyr	Cys	Ser	Arg	Val	Glu	He	Pro	Ser	Gly	Gln	Val
		195					200					205			
Ser	Arg	Gln	Lys	Glu	Val	Phe	Gln	Ala	Leu	Glu	Ala	Gly	Lys	Lys	Glu
	210					215					220				
Glu	Gln	Glu	Pro	Arg	Val	He	Ala	Gly	Ser	He	Pro	Ala	Gly	Ser	Val
225					230					235					240
His	Lys	Phe	Thr	Trp	Leu	Phe	Glu	Asn	Cys	Pro	Met	Gly	Ser	Leu	Ala
				245					250					255	
Ala	Glu	Ser	He	Gln	Gly	Gly	Asn	Leu	Leu	Glu	Glu	Gln	Pro	Met	Ser
			260					265					270		
Pro	Ser	Gly	Asn	Arg	Met	Gln	G] u	Ser	Gln	Glu	Thr	Ala	Ala	Glu	Gly
		275					280					285			
Thr	Leu	Arg	Thr	Leu	His	Ala	Thr	Pro	Gly	11e	Leu	His	His	Gly	Gly
	290					295					300				
He	Leu	Met	Glu	Ala	Arg	Gly	Pro	G] y	Glu	Leu	Cys	Leu	Ala	Lys	Tyr
305					310					315					320
Val	Leu	Ser	Gly	Thr	Gly	Gln	Gl y	His	Pro	Tyr	He	Arg	Lys	Glu	Glu
				325					330					335	
Leu	Val	Ser	Gly	Glu	Leu	Pro	Arg	He	He	Cys	Gln	Val	Leu	Arg	Arg
			340					345					350		
Pro	Asp	Val	Asp	Gln	Gln	G1 y	Leu	Leu	Val	Gln	Glu	Asp	Pro	Thr	Gly
		355					360					365			
GIn	Leu	Gln	Leu	Lys	Pro	Leu	Arg	Leu	Pro	Thr	Pro	Gly	Ser	Ser	Gly
	370					375					380				
Asn	Пе	$\operatorname{GL} u$	Asp	Met	Asp	Pro	Glu	Leu	Gln	Gln	Leu	Leu	Ala	Cys	G1y

385					390					395					400
Leu	Gly	Thr	Ser	Val	Ala	Arg	Thr	Gly	Leu	Val	Met	Gln	Glu	Thr	Glu
				405					410					415	
Gln	Gly	Leu	Val	Ala	Leu	Thr	Ala	Tyr	Ser	Leu	Gln	Pro	Arg	Leu	Thr
			420					425					430		
Ser	Lys	Ala	Ser	Glu	Arg	Ser	Ser	Val	Gln	Leu	Leu	Ala	Ser	Cys	He
		435					440					445			
Asp	Lys	Gly	Asp	Leu	Ser	Gly	Leu	His	Ser	Leu	Arg	Trp	Glu	Pro	Pro
	450					455					460				
Ala	Asp	Pro	Ser	Pro	Val	Pro	Ala	Ser	Glu	Gly	Ala	Gln	Ser	Leu	His
465					470					475					480
Pro	Thr	Glu	Ser	He	He	His	Val	Pro	Pro	Leu	Asp	Pro	Ser	Met	Gly
				485					490					495	
Met	Gly	His	Leu	Arg	Ala	Ser	Gly	Ala	Thr	Pro	Cys	Pro	Pro	Gln	Ala
			500					505					510		
He	Gly	Lys	Ala	Val	Pro	Leu	Ala	Gly	Glu	Ala	Ala	Ala	Pro	Ala	Gln
		515					520					525			
Leu	Gln	Asn	Thr	Glu	Lys	Gln	Glu	Asp	Ser	His	Ser	Gly	Gln	Lys	Gly
	530					535					540				
Met	Ala	Va]	Leu	Gly	Lys	Ser	Glu	Gly	Ala	Thr	Thr	Thr	Pro	Pro	Gly
545					550					555					560
Pro	Gly	Ala	Pro	Asp	Leu	Leu	Ala	Ala	Met	Gln	Ser	Leu	Arg	Met	Ala
				565					570					575	
Thr	Ala	Glu	Ala	Gln	Ser	Leu	His	Gln	Gln	Val	Leu	Asn	Lys	His	Lys
			580					585					590		
Gln	Gly	Pro	Thr	Pro	Thr	Ala	Thr	Ser	Asn	Pro	He	Gln	Asp	G1 y	Leu
		595					600					605			
Arg		Ala	Gly	Ala	Thr		Ser	Asn	He	Arg	Pro	Gly	Gly	G] y	Ser
	610					615					620				
Asp	Pro	Arg	Пe	Pro		Ala	Pro	Arg	Lys		Ser	Arg	Glu	Glu	
625					630					635					640
Ala	Leu	Pro	Arg		Leu	Pro	Gly	Gly	Trp	Va]	Thr	He	Gln		G1 y
				645					650					655	
He	Tyr	Thr		His	Pro	Va]	Arg		Phe	Asp	Pro	Pro	G1 y	Gly	Val
			660			_		665					670		
Gln	Leu	Ser	Gln	Arg	Glu	Pro	Gln	Ser	Arg	His	Arg	G1n	Thr	Ala	Leu

		675					680					685			
Ser	Val	Gln	Ala	Pro	Arg	Pro	Leu	Gln	Gly	Gly	Pro	Gly	Gln	Ser	Thr
	690					695					700				
Gly	Pro	Gly	Arg	Glu	Glu	Pro	Gly	Gly	Cys	Thr	Gln	Met	Ala	Trp	Gly
705					710					715					720
Pro	Pro	Gly	Lys	Ala	Met	Ala	Glu	Val	Cys	Pro	Gly	Gly	Leu	Gln	Ala
				725					730					735	
Ala	Glu	Thr	Thr	Leu	Lys	Thr	Ala	Pro	Leu	Gly	Arg	His	11e	Leu	Ala
			740					745					750		
Ser	Gly	Pro	Gln	Ala	Ala	Gly	Ala	Ser	Pro	His	Pro	His	Asn	Ala	Phe
		755					760					765			
Val	Pro	Pro	Pro	Pro	Thr	Leu	Pro	Ala	Ala	Val	Thr	Gly	Pro	Asp	Phe
	770					775					780				
Pro	Ala	Gly	Ala	His	Arg	Ala	Glu	Asp	Ser	He	Gln	Gln	Ala	Ser	Glu
785					790					795					800
Pro	Leu	Lys	Asp	Pro	Leu	Leu	His	Ser	His	Ser	Ser	Pro	Ala	G1y	Gln
				805					810					815	
Arg	Thr	Pro	Gly	Gly	Ser	Gln	Thr	Lys	Thr	Pro	Lys	Leu	Asp	Pro	Thr
			820		,			825					830		
Met	Pro	Pro	Lys	Lys	Lys	Pro	Gln	Leu	Pro	Pro	Lys	Pro	Ala	His	Leu
		835					840					845			
Thr		Ser	His	Pro	Pro		Arg	Leu	Pro	Lys	Pro	Leu	Pro	Leu	Ser
	850			_		855					860				
	Ser	Phe	Ser	Ser		Val	Gly	GIn	Arg		His	GIn	Arg	Gly	
865		TC1			870	<i>c</i>)	D			875	D	TT)	Tr.	37 T	880
Arg	Asp	Ihr	Ala		Pro	61n	Pro	Ala		Val	Pro	lhr	Ihr		Asp
C1	C1	0: ~	Ha	885	1	A 1 .s	A	Cura	890 Base	C	Cl.	114	C	895	Dana
GIN	GIŅ	ms	900	rro	Leu	A1a	Arg	905	rro	ser	61 y	HIS		GIN	Pro
Sor	Lou	Cln		C1v	Lou	Sor	Thr		Ala	Dro	Ance	Dro	910	Luc	Acm
361	Leu	915	1112	GTY	Leu	961	920	1111	Ald	110	Alg	925	1 11.1	Lys	ASII
Gln	Ala		Glv	Ser	Aen	Ala	GIn	Sar	Sor	Glu	Pro		lve	Lou	Aen
OIII	930		Oly	OC.	11.511	935	пто	261	.,(1	O1 u	940	110	Lys	i,cu	изп
Ala		Asn	His	Asp	Pro		Ser	Pro	Gln	Trn		Pro	Glv	Pro	Ser
945	2.0				950				0.111	955	V.,	.10	~.,		960
	Glu	Gln	Pro	Met		G1 v	Ser	His	Glp		Ala	Pro	Glu	Ser	

	975				970				965				
G]n	Leu Asn	Leu	Gly	Gln	Leu	ys Glu	Gln	Asn	Arg	Gln	Leu	Ser	Asp
	990				•	985				980			
Ala	Val Gln	Asp	Val	Ser	Ser	la Ala	Glu	Lys	Glu	Leu	Ala	Gln	Val
		1005				000	1				995		
Pro	Ala Ala	Gly	Gly	Leu	G1n	al Pro	Ala	Glu	Phe	Leu	Arg	Arg	Leu
			1020				1015	-				010	
Ala	Glu Gln	Val	Ser	Ala	G]u	.ys Pro	Gln	His	Ala	Ala	Pro	Ala	G1n
1040				1035				1030				5	1025
Glu	Leu Lys	Gln	Ala	Val	Glu	Ser Thr	Val	Arg	Thr	Leu	Glu	Gly	Phe
	. 1055			+	1050				1045				
Ala	His Lys	Val	Ala	G] u	G]u	Asp lle	Leu	Leu	Arg	Ala	Leu	Thr	Gln
	070				,	1065				1060			
His	Arg Gly	Ala	Ser	Ala	Glu	iln Pro	Leu	Ser	Ser	Met	Ser	Ser	Leu
		1085				080	J				1075		
Thr	Ser Val	He	Lys	His	Ala	lis Ser	Asp	Lys	Pro	Pro	Gly	Gln	Phe
			1100				1095					090	
Gly	Val Gly	Glu	Gln	Gly	Ser	Ser Gly	Pro	Arg	Ala	Ser	Ser	Ser	Val
1120				1115				1110				5	110
41.			A	C 1	11 1	No Lyc	Gln	Asn	Lve	Val	410	T1	Gln
на	Thr Glu	His	Cys	Glu	val	na Lys	01		1. 3 3	, (11	Mia	ınr	OIII
ита	Thr Glu 1135	His	Cys		1130		01		1125		nia	inr	OIII
)	1130				1125				
Thr	1135 Gly His 150	Arg	Ala	Glu	1130 : Thr	Asn His 1145	Arg	Ile	1125 Lys	Va] 1140	Gln	Ser	Gln
Thr	1135 Gly His	Arg Ser	Ala Thr	Glu	1130 : Thr	Asn His 1145 Arg Arg	Arg Thr	Ile	1125 Lys	Va] 1140	Gln Thr	Ser Ser	Gln
Thr	1135 Gly His 150 Arg Glu	Arg Ser 1165	Ala Thr	Glu Glu	1130 5 Thr 6 g Gln	Asn His 1145 Arg Arg 160	Arg Thr	Ile Ser	l125 Lys Pro	Va] 1140 Ala	Gln Thr 1155	Ser Ser	Gln Ala
Thr	1135 Gly His 150	Arg Ser 1165	A]a Thr	Glu Glu Arg	1130 5 Thr 6 g Gln	Asn His 1145 Arg Arg 160	Arg Thr Leu	Ile Ser Val	l125 Lys Pro	Va] 1140 Ala	Gln Thr 1155	Ser Ser Cys	Gln Ala Leu
Thr Tyr Ser	1135 Gly His 150 Arg Glu Pro Ser	Arg Ser 1165 Ser	Ala Thr Asp 1180	Glu Glu Arg	1130 Thr G Gln	Asn His 1145 Arg Arg 160 Pro Ser	Arg Thr Leu	Ile Ser Val	l125 Lys Pro Arg	Val 1140 Ala Pro	Gln Thr 1155 Pro	Ser Ser Cys	Gln Ala Leu
Thr Tyr Ser	1135 Gly His 150 Arg Glu Pro Ser Leu Glu	Arg Ser 1165 Ser	Ala Thr Asp 1180	Glu Glu Arg	1130 Thr G Gln Ser	Asn His 1145 Arg Arg 160 Pro Ser	Arg Thr Leu	Ile Ser Val	Lys Pro Arg Ser	Val 1140 Ala Pro	Gln Thr 1155 Pro	Ser Ser Cys 170 Thr	Gln Ala Leu Pro
Thr Tyr Ser Thr	1135 Gly Mis 150 Arg Glu Pro Ser Leu Glu	Arg Ser 1165 Ser Pro	Ala Thr Asp 1180 Lys	Glu Glu Arg Arg	1130 Thr GGIn Ser	Asn His 1145 Arg Arg 160 Pro Ser Ser Ala	Arg Thr Leu 1175 Gln	Ile Ser Val Ile	Lys Pro Arg Ser	Val 1140 Ala Pro Ile	Gln Thr 1155 Pro Phe	Ser Ser Cys 1170 Thr	Gln Ala Leu Pro
Thr Tyr Ser Thr	1135 Gly His 150 Arg Glu Pro Ser Leu Glu	Arg Ser 1165 Ser Pro	Ala Thr Asp 1180 Lys	Glu Glu Arg Arg 1195	1130 Fig. Thr Goding Glin Fig. Ser	Asn His 1145 Arg Arg 160 Pro Ser Ser Ala	Arg Thr Leu 1175 Gln	Ile Ser Val Ile	Lys Pro Arg Ser	Val 1140 Ala Pro Ile Lys	Gln Thr 1155 Pro Phe	Ser Ser Cys 1170 Thr	Gln Ala Leu Pro
Thr Tyr Ser Thr 1200 Leu	1135 Gly His 150 Arg Glu Pro Ser Leu Glu Thr Gln 1215	Arg Ser 1165 Ser Pro	Ala Thr Asp 1180 Lys	Glu Glu Arg Arg 1195	1130 : Thr : Thr : Ser : Ser : Ser : 1210	Asn His 1145 Arg Arg 160 Pro Ser Ser Ala	Arg Thr Leu 1175 Gln Pro	Ile Ser Val Ile Il90 Asn	Lys Pro Arg Ser Gly 1205	Val 1140 Ala Pro Ile	Gln Thr 1155 Pro Phe	Ser Cys 1170 Thr Ser	Gln Ala Leu Pro
Thr Tyr Ser Thr 1200 Leu	1135 Gly His 150 Arg Glu Pro Ser Leu Glu Thr Gln 1215 Val Gln	Arg Ser 1165 Ser Pro Ser Gly	Ala Thr Asp 1180 Lys	Glu Glu Arg Arg 1195	1130 Fig. Thr Ger For Thr Ser 1210 Fig. His	Asn His 1145 Arg Arg 160 Pro Ser Ser Ala Asp Val	Arg Thr Leu 1175 Gln Pro	Ile Ser Val Ile Il90 Asn	Lys Pro Arg Ser Gly 1205	Val 1140 Ala Pro Ile Lys	Gln Thr 1155 Pro Phe Asp	Ser Cys 1170 Thr Ser	Gln Ala Leu Pro
Thr Ser Thr 1200 Leu Asp	1135 Gly His 150 Arg Glu Pro Ser Leu Glu Thr Gln 1215 Val Gln 230	Arg Ser 1165 Ser Pro Ser Gly	Ala Thr Asp H180 Lys Lys	Glu Glu Arg Arg 1195 Val	1130 Thr Garage Gluerant Service Thr 1210 1 His	Asn His 1145 Arg Arg 160 Pro Ser Ser Ala Asp Val Leu Leu 1225	Arg Thr Leu 1175 Gln Pro	Ile Ser Val Ile I190 Asn Gln	Lys Pro Arg Ser Gly 1205 Gly	Val 1140 Ala Pro He Lys	Gln Thr 1155 Pro Phe Asp	Ser Cys 1170 Thr Ser Gln	Gln Ala Leu Pro 1183 Pro Ala
Thr Ser Thr 1200 Leu Asp	1135 Gly His 150 Arg Glu Pro Ser Leu Glu Thr Gln 1215 Val Gln	Arg Ser 1165 Ser Pro Ser Gly	Ala Thr Asp 1180 Lys Lys Val	Glu Glu Arg Arg 1195 Val	1130 Thr Garage Gluerant Service Thr 1210 1 His	Asn His 1145 Arg Arg 160 Pro Ser Ger Ala Asp Val Leu Leu 1225 Thr Gln	Arg Thr Leu 1175 Gln Pro Ala	Ile Ser Val Ile I190 Asn Gln	Lys Pro Arg Ser Gly 1205 Gly	Val 1140 Ala Pro He Lys	Gln Thr 1155 Pro Phe Asp Gly	Ser Cys 1170 Thr Ser Gln	Gln Ala Leu Pro 1183 Pro Ala
Thr Tyr Ser Thr 1200 Leu Asp	1135 Gly His 150 Arg Glu Pro Ser Leu Glu Thr Gln 1215 Val Gln 230	Arg Ser 1165 Ser Pro Ser Gly Gln 1245	Ala Thr Asp H80 Lys Lys Val	Glu Glu Arg Arg 1195 Val	1130 Thr Garage Gluerant Ser 1210 1 History Cys	Asn His 1145 Arg Arg 160 Pro Ser Ser Ala Asp Val Leu Leu 1225 Thr Gln 240	Arg Thr Leu 1175 Gln Pro Ala	Ile Ser Val Ile 1190 Asn Gln	Lys Pro Arg Ser Gly 1205 Gly Lys	Val 1140 Ala Pro Ile Lys Ile 1220 Lys	Gln Thr 1155 Pro Phe Asp Gly 1235	Ser Cys 1170 Thr Ser Gln	Gln Ala Leu Pro 1188 Pro Ala

Leu Glu Leu Gln Thr Gly Pro Gly Ser Ser Gln His Tyr Gly Ala Met Arg Thr Val Thr Glu Gln Tyr Glu Glu Val Asp Gln Phe Gly Asn Thr Val Leu Met Ser Ser Thr Thr Val Thr Glu Gln Ala Glu Pro Pro Arg Asn Pro Gly Ser His Leu Gly Leu His Ala Ser Pro Leu Leu Arg Gln Phe Leu His Ser Pro Ala Gly Phe Ser Ser Asp Leu Thr Glu Ala Glu Thr Val Gln Val Ser Cys Ser Tyr Ser Gln Pro Ala Ala Gln <210> 4198 <211> 331 <212> PRT <213> Homo sapiens <400> 4198 Met Ala Glu Gly Gly Gly Pro Glu Pro Gly Glu Gln Glu Arg Arg Ser Ser Gly Pro Arg Pro Pro Ser Ala Arg Asp Leu Gln Leu Ala Leu Ala Glu Leu Tyr Glu Asp Glu Val Lys Cys Lys Ser Ser Lys Ser Asn Arg Pro Lys Ala Thr Val Phe Lys Ser Pro Arg Thr Pro Pro Gln Arg Phe Tyr Ser Ser Glu His Glu Tyr Ser Gly Leu Asn 11e Val Arg Pro Ser Thr Gly Lys 11e Val Asn Glu Leu Phe Lys Glu Ala Arg Glu His Gly

Ala Val Pro Leu Asn Glu Ala Thr Arg Ala Ser Gly Asp Asp Lys Ser

Lys	Ser	Phe	Thr	Gly	Gly	Gly	Tyr	Arg	Leu	G] y	Ser	Ser	Phe	Cys	Lys
		115					120					125			
Arg	Ser	Glu	Tyr	He	Tyr	Gly	G] u	Asn	Gln	Leu	Gln	Asp	Val	Gln	Пе
	130					135					140				
Leu	Leu	Lys	Leu	Trp	Ser	Asn	Gly	Phe	Ser	Leu	Asp	Asp	Gly	Glu	Leu
145					150					155					160
Arg	Pro	Tyr	Asn	Glu	Pro	Thr	Asn	Ala	Gln	Phe	Leu	Glu	Ser	Val	Lys
				165					170					175	
Arg	Gly	Glu	Ile	Pro	Leu	Glu	Leu	Gln	Arg	Leu	Val	His	Gly	Gly	Gln
			180					185					190		
Val	Asn	Leu	Asp	Met	Glu	Asp	His	Gln	Asp	Gln	Glu	Tyr	He	Lys	Pro
		195					200					205			
Arg	Leu	Arg	Phe	Lys	Ala	Phe	Ser	Gly	G] u	Gly	Gln	Lys	Leu	Gly	Ser
	210					215					220				
Leu	Thr	Pro	Glu	He	Val	Ser	Thr	Pro	Ser	Ser	Pro	Glu	Glu	Glu	Asp
225					230					235					240
	Ser	lle	Leu	Asn	Ala	Val	Val	Leu	lle	Asp	Asp	Ser	Val	Pro	Thr
	Ser	lle	Leu	Asn 245	Ala	Val	Val	Leu	11e 250	Asp	Asp	Ser	Val	Pro 255	Thr
Lys				245					250				Val Ile	255	
Lys				245					250					255	
Lys Thr	Lys	Ile	G1n 260	245 11e	Arg	Leu	Ala	Asp 265	250 Gly	Ser	Arg	Leu	Ile	255 G1n	Arg
Lys Thr	Lys	Ile	G1n 260	245 11e	Arg	Leu	Ala	Asp 265	250 Gly	Ser	Arg	Leu	11e 270	255 G1n	Arg
Lys Thr Phe	Lys Asn	Ile Ser 275	G1n 260 Thr	245 Ile His	Arg Arg	Leu He	Ala Leu 280	Asp 265 Asp	250 Gly Val	Ser Arg	Arg Asn	Leu Phe 285	11e 270	255 Gln Val	Arg Gln
Lys Thr Phe	Lys Asn	Ile Ser 275	G1n 260 Thr	245 Ile His	Arg Arg	Leu He	Ala Leu 280	Asp 265 Asp	250 Gly Val	Ser Arg	Arg Asn	Leu Phe 285	11e 270 11e	255 Gln Val	Arg Gln
Lys Thr Phe Ser	Lys Asn Arg 290	Ile Ser 275 Pro	G1n 260 Thr G1u	245 Ile His	Arg Arg Ala	Leu 11e Ala 295	Ala Leu 280 Leu	Asp 265 Asp Asp	250 Gly Val Phe	Ser Arg lle	Arg Asn Leu 300	Leu Phe 285 Val	11e 270 11e	255 Gln Val Ser	Arg Gln Phe
Lys Thr Phe Ser	Lys Asn Arg 290	Ile Ser 275 Pro	G1n 260 Thr G1u	245 Ile His	Arg Arg Ala	Leu 11e Ala 295	Ala Leu 280 Leu	Asp 265 Asp Asp	250 Gly Val Phe	Ser Arg lle	Arg Asn Leu 300	Leu Phe 285 Val	11e 270 11e Thr	255 Gln Val Ser	Arg Gln Phe
Lys Thr Phe Ser Pro 305	Lys Asn Arg 290 Asn	Ile Ser 275 Pro Lys	G1n 260 Thr G1u	245 Ile His Phe Leu	Arg Arg Ala Thr	Leu Ile Ala 295 Asp	Ala Leu 280 Leu Glu	Asp 265 Asp Asp	250 Gly Val Phe Leu	Ser Arg He Thr	Arg Asn Leu 300	Leu Phe 285 Val	11e 270 11e Thr	255 Gln Val Ser	Arg Gln Phe

<210> 4199

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4199

Met Thr Phe Ser Leu Ala Arg Ile Lys Arg Gly Gly Cys Phe Leu Ala 10 Gly Phe Arg Asn Leu Phe Lys Trp Phe His Cys Pro Phe Ile His Pro 25 Ser Thr His Pro Thr Ile Gln Pro Ala Ile His Pro Leu Phe Ile Gln 35 40 45 Gln Thr Phe Ser Cys Thr Arg Glu Leu Lys Gly Glu Gly Ser Gly Pro 55 Trp Ala Pro Pro Ala Cys Arg Glu Thr Pro Leu Cys Gly Arg Arg Gly 65 70 75 Gly Leu Cys Pro Leu Tyr Pro Pro Ser Val Pro Val Val Phe Arg Pro 85 90 95 Val Thr Cys Leu Asn Leu Ser Val Cys Leu 100 105

<210> 4200

<211> 527

<212> PRT

<213> Homo sapiens

<400> 4200

Met Val Tyr lle Val Arg Gln Phe Leu Leu Tyr Asn Val Ser Gly Ser 1 5 10 15

Val Tyr Leu Asp Gln Leu Ile Val Leu Leu Thr Ala Lys Phe Ser Ile 20 25 30

Leu Arg Ile Ala Gly Ser Arg Val His His Ser Pro Phe Ser Gly His
35 40 45

Leu Asp Gly Cys Ser Phe Leu Ser Leu Gln His Ser Leu His Thr Ser 50 55 60

Leu Asp Met Ser Arg His Glu Asn Val Phe Leu Gly Leu Thr Leu Ser 65 70 75 80

Ser Lys Ser Ala Gly Leu Lys Gly Phe Gln Leu Ala Phe Val Pro Gly
85 90 95

Leu Leu Gln Gly Thr Gly Gly Tyr Leu Asp Gly Pro Leu Pro Thr Pro
100 105 110

Va]	Asp	Asn	Pro	Arg	Val	G1 y	Leu	Glu	Val	G1 y	Leu	Arg	Leu	Ser	Leu
		115					120					125			
Pro	Pro	Leu	Pro	Pro	Cys	Pro	Gly	Val	His	He	Gln	Ser	Ser	Gln	Thr
	130					135					140				
Val	Glu	Ser	Ser	Gly	Leu	Tyr	Thr	Leu	Gln	Ser	lle	Leu	Lys	Ala	Gln
145					150					155					160
Leu	Val	Lys	Glu	Asp	Lys	Asp	Ala	Gln	Phe	Tyr	Cys	Glu	Leu	Asn	Tyr
				165					170					175	
Arg	Leu	Pro	Ser	Gly	Asn	His	Met	Lys	Glu	Ser	Arg	Glu	Val	Thr	Val
			180					185					190		
Pro	Val	Phe	Tyr	Pro	Thr	Glu	Lys	Val	Trp	Leu	Glu	Val	Glu	Pro	Val
		195					200					205			
Gly	Met	Leu	Lys	Glu	Gly	Asp	Arg	Val	Glu	He	Arg	Cys	Leu	Ala	Asp
	210					215					220				
Gly	Asn	Pro	Pro	Pro	His	Phe	Ser	lle	Ser	Lys	Gln	Asn	Pro	Ser	Thr
225					230					235					240
Arg	Glu	Ala	Glu	Glu	Glu	Thr	Thr	Asn	Asp	Asn	Gly	Val	Leu	Val	Leu
				245					250					255	
Glu	Pro	Ala	Arg	Lys	Glu	His	Ser	Gly	Arg	Tyr	Glu	Cys	Gln	Gly	Leu
			260					265					270		
Asp	Leu	Asp	Thr	Met	He	Ser	Leu	Leu	Ser	Glu	Pro	Gln	Glu	Leu	Leu
		275					280					285			
Val		Tyr	Val	Ser	Asp	Val	Arg	Val	Ser	Pro		Ala	Pro	Glu	Arg
	290					295					300				
	Glu	Gly	Ser	Ser		Thr	Leu	Thr	Cys		Ala	G] u	Ser	Ser	
305					310					315					320
Asp	Leu	Glu	Phe		Trp	Leu	Arg	Glu		Thr	Gly	GIn	Val		Glu
	0.1	Б	17 1	325	6.1	•			330			61		335	6.1
Arg	61 y	Pro		Leu	GIn	Leu	HIS		Leu	Lys	Arg	Glu		Gly	61 y
C1	т		340	17 3	4.1	C	17 1	345	C	3.1	D	C1	350		,
GIY	lyr		Cys	vai	Ala	Ser		Pro	Ser	11e	Pro		Leu	Asn	Arg
TI.	C1	355	17 1		17 1	. 1	360	DI	C 1	D	D	365			DI
ınr		Leu	val	Asn	val	Ala	116	rne	61 y	rro		irp	мет	Ala	rne
1	370	Λ	1	V ~ 1	Т	375	1	C1.	Λ	Mat	380	1	Λ	نیم ا	C ~ ~
	01U	arg	Lys	rai		Va]	LŸS	GIU	ASN		vai	Leu	ASII	Leu	
385					390					395					400

Cys	Glu	Ala	Ser	Gly	His	Pro	Arg	Pro	Thr	lle	Ser	Trp	Asn	Val	Asn
				405					410					415	
Gly	Thr	Ala	Ser	Glu	Gln	Asp	Gln	Asp	Pro	Gln	Arg	Val	Leu	Ser	Thr
			420					425					430		
Leu	Asn	Val	Leu	Val	Thr	Pro	Glu	Leu	Leu	Glu	Thr	Gly	Val	Glu	Cys
		435					440					445			
Thr	Ala	Ser	Asn	Asp	Leu	Gly	Lys	Asn	Thr	Ser	Пе	Leu	Phe	Leu	Glu
	450					455					460				
Leu	Val	Asn	Leu	Thr	Thr	Leu	Thr	Pro	Asp	Ser	Asn	Thr	Thr	Thr	Gly
465					470					475					480
Leu	Ser	Thr	Ser	Thr	Ala	Ser	Pro	His	Thr	Arg	Ala	Asn	Ser	Thr	Ser
				485					490					495	
Thr	Gly	Lys	Pro	Gly	Leu	Ala	Arg	Glu	Gln	Gly	Cys	Ala	Arg	Ala	Ser
			500					505					510		
Phe	Leu	Pro	Cys	Pro	Ser	Pro	Glu	Ser	Pro	Val	Gln	Lys	Gly	Glu	
		515					520					525			

<210> 4201

<211> 146

<212> PRT

<213> Homo sapiens

<400> 4201

Met Thr Thr Pro Pro Thr Ser Leu Pro Glu Pro Phe Ser Gly Asp Pro Gly Arg Leu Ala Gly Phe Leu Met Gln Met Asp Arg Phe Met Ile Phe Gln Ala Ser Arg Phe Pro Gly Glu Ala Glu Arg Val Ala Phe Leu Val Ser Arg Leu Thr Gly Glu Ala Glu Lys Trp Ala Ile Pro His Met Gln Pro Asp Ser Pro Leu Arg Asn Asn Tyr Gln Gly Phe Leu Ala Glu Leu Arg Arg Thr Tyr Lys Ser Pro Leu Arg His Ala Arg Arg Ala Gln lle

Arg Lys Thr Ser Ala Ser Asn Arg Ala Val Arg Glu Arg Gln Met Leu 105 100 Cys Arg Gln Leu Ala Ser Ala Gly Thr Gly Pro Cys Pro Val His Pro 115 120 125 Ala Ser Asn Gly Thr Ser Pro Ala Pro Ala Leu Pro Ala Arg Ala Arg 130 135 140 Asn Leu 145 <210> 4202 <211> 117 <212> PRT <213> Homo sapiens <400> 4202 Met lle Pro Trp Arg Arg Gly Val Leu Val Phe Gly Ile Phe Ser 10 Leu Leu Val Leu Val Phe Pro His Leu Pro Gly Phe Ile Cys Leu Trp 20 25 30 Ser Leu Met Leu Val Thr Phe Gly Trp Gly Phe Cys Val Asp Ile Val 40 Phe Val Asp Val Asp Ala Ile Pro Phe Cys Phe Leu Val Phe Leu Leu 55 60 Thr Gly Arg Leu Leu Ser Cys Arg Pro Ala Gly Val Cys Trp Arg Ser 65 70 75 80 Thr Pro Asp Pro Val Cys Leu Ser Ile Thr Ser Arg His Cys Arg Thr 90 85 Ala Lys lle Ala Ala Cys Ser Phe Leu Trp Lys Phe Arg Pro Arg Gly 100 110 105

<210> 4203

Ala Pro Ala Arg Cys 115

<211> 369

<212	> PF	T7													
<213	> He	omo s	sapi	ens											
<400	> 42	203													
Met	Пе	Gln	Gly	Arg	Leu	Phe	Asn	Met	Leu	Ser	Ala	Val	Arg	Glu	Met
1				5					10					15	
Asp	Lys	Glu	Ser	lle	Leu	Arg	Lys	He	Gly	Gln	Лlа	Lys	Gln	Ser	He
			20					25					30		
Ala	Gln	Glu	Ala	Asn	Phe	Phe	Lys	Phe	Phe	Leu	Arg	Arg	Ile	Ser	Gln
		35					40					45			
Asp	Asp	Tyr	Thr	Ser	Arg	Phe	Ser	Val	Ser	Pro	Lys	Glu	Val	Leu	Pro
	50					55					60				
Phe	Ala	Phe	Pro	Asp	Cys	Ser	Pro	Pro	Gln	Asp	Ser	Asn	Glu	Leu	Ala
65					70					75					80
Pro	Asp	Gly	Leu	Gly	Leu	Val	Pro	He	Lys	Ser	Ser	Glu	Val	Gln	He
				85					90					95	
Lys	Gln	Ser	Tyr	Ser	Phe	Phe	Asn	Leu	Gln	Val	Pro	Gln	Leu	Tyr	Lys
			100					105					110		
Ile	Lys	Arg	Tyr	Gln	Pro	Phe	Ser	Val	His	Lys	Ser	Ser	Thr	Ser	Tyr
		115					120					125			
Arg	Pro	Gln	Lys	Leu	Ala	Arg	Ala	Leu	Lys	Gln	Gly	Ala	Glu	Asp	Glu
	130					135					140				
Val	Thr	Thr	He	Thr	Ala	Leu	Pro	Lys	Gln	Asp	Ser	Thr	Thr	Gln	Leu
145					150					155					160
Ser	Gly	Lys	Thr	Ser	He	Leu	Ser	Met	Lys	Pro	Pro	Glu	Ala	Leu	Ala
				165					170				•	175	
Met	Ser	Leu	Asp	Tyr	Asp	Pro	Leu	Tyr	Val	Phe	Asn	Pro	Asn	Pro	Gly
			180					185					190		
Leu	Phe	Ala	Val	Met	His	Pro	Leu	Thr	Tyr	Ala	Glu	Thr	Leu	He	Asp
		195					200					205			
Tyr	His	Leu	Cys	Ser	His	Pro	Lys	Tyr	Lys	Phe	Thr	Lys	Glu	Ser	Arg

His Gly Ser Ser lle Pro Val Thr Gln Lys Gln Phe Leu His His Thr

Asp lle lle Pro Gly lle Met His Trp Lys Ser Phe Gln Ser Leu Val

Leu	Ser	Ser	Leu	Pro	Asp	Pro	Ser	Lys	Met	Glu	Thr	Thr	Lys	Ser	Cys
			260					265					270		
Asp	Ser	Phe	Asn	Ser	Phe	Met	Leu	Pro	He	Asp	Val	Pro	Ala	He	Leu
		275					280					285			
Asp	Ala	Leu	Pro	Glu	Glu	Asp	Arg	Leu	Glu	Thr	Val	Glu	Arg	Glu	Leu
	290					295					300				
Cys	Glu	Gln	Asn	Val	Glu	Val	Met	Leu	Thr	Pro	Glu	Met	He	Lys	Val
305					310					315					320
Glu	Phe	Pro	Met	Leu	Asn	Tyr	Lys	Asp	Ile	Arg	Lys	Glu	Lys	Glu	Val
				325					330					335	
Lys	Asp	G]n	Ala	Gln	Pro	Ala	Glu	Lys	Ala	Gly	Glu	Lys	Leu	Leu	Glu
			340					345					350		
Glu	Met	Arg	Asn	Leu	Arg	Gly	Lys	Ala	Leu	Asn	Thr	Tyr	Leu	He	Leu
		355					360					365			
Glu															

<210> 4204 <211> 105

<212> PRT

<213> Homo sapiens

<400> 4204

Met Pro Lys IIe IIe Leu Cys Pro Asn His Lys Phe Ser Gly Leu Pro
1 5 10 15

Arg Asn His Leu Val Cys IIe Glu Cys Phe Ser Lys Cys Arg Asp Ala
20 25 30

Gln Val Val Gly 11e Gln Tyr 11e Glu Leu Ser Arg Cys Thr Phe Leu
35 40 45

Glu Tyr Asn Leu Asn Gly His Phe Pro Thr Cys Ala Ile Pro Leu Phe 50 55 60

Ser Pro His Ser lle His lle Ser Gln Thr Thr Leu lle lle Val Phe 65 70 75 80

lle Ile Asp Leu Arg Lys Lys Phe Glu Arg Val Glu Lys Thr Cys
85 90 95

lle Leu Ser Pro Trp Ile Val Asn His 100 105

<210> 4205 <211> 610 <212> PRT <213> Homo sapiens <400> 4205 Met Ala Glu Leu Ser Glu Pro Glu Gly Pro Val Asp Trp Lys Glu Arg 10 Cys Val Ala Leu Glu Ser Gln Leu Met Lys Phe Arg Val Gln Ala Ser 25 Lys Ile Arg Glu Leu Leu Ala Glu Lys Met Gln Gln Leu Glu Arg Gln 40 35 45 Val 11e Asp Ala Glu Arg Gln Ala Glu Lys Ala Phe Gln Gln Val Gln 55 Val Met Glu Asp Lys Leu Lys Ala Ala Asn Ile Gln Thr Ser Glu Ser 70 75 80 Glu Thr Arg Leu Tyr Asn Lys Cys Gln Asp Leu Glu Ser Leu 11e Gln 85 90 Glu Lys Asp Asp Val Tle Gln Asn Leu Glu Leu Gln Leu Glu Glu Gln 100 105 110 Lys Gln Ile Arg Ile Gln Glu Ala Lys Ile Ile Glu Glu Lys Ala Ala 115 120 125 Lys lle Lys Glu Trp Val Thr Val Lys Leu Asn Glu Leu Glu Leu Glu 135 140 Asn Gln Asn Leu Arg Leu Ile Asn Gln Asn Gln Thr Glu Glu Ile Arg 145 150 155 160 Thr Met Gln Ser Lys Leu Gln Val Gln Gly Lys Lys Ser Ser Thr Val 165 170 Ser Thr Leu Lys Leu Ser Glu Gly Gln Arg Leu Ser Ser Leu Thr Phe 185

Gly Cys Phe Leu Ser Arg Ala Arg Ser Pro Pro Gln Val Val Lys Ser

205

200

Glu	Glu	Met	Ser	Lys	lle	Ser	Ser	Lys	Glu	Pro	Glu	Phe	Thr	Glu	Gly
	210					215					220				
Lys 225	Asp	Met	Glu	Glu	Met 230	Glu	Ile	Pro	Glu	Lys 235	Ser	Val	Asp	Asn	G1n 240
Val	Leu	Glu	Asn	Asn 245	Arg	Gly	Gln	Arg	Thr 250	Leu	His	Gln	Thr	Pro 255	Cys
Gly	Ser	Glu	Gln 260	Asn	Arg	Lys	Thr	Arg 265	Thr	Ser	Phe	Ala	Thr 270	Asp	Gly
Gly	lle	Ser 275	Gln	Asn	Ser	Gly	Ala 280	Pro	Val	Ser	Asp	Trp 285	Ser	Ser	Asp
Glu	Glu 290	Asp	Gly	Ser	Arg	Gly 295	Arg	Ser	Lys	Ser	Arg 300	Cys	Thr	Ser	Thr
Leu 305	Ser	Ser	His	Thr	Ser 310	Glu	Glu	Gly	Va]	Gln 315	Cys	Ser	Arg	Met	Gly 320
Ser	Glu	Met	Tyr	Leu 325	Thr	Ala	Ser	Asp	Asp 330	Ser	Ser	Ser	He	Phe 335	Glu
Glu	Glu	Thr	Phe 340	Gly	lle	Lys	Arg	Pro 345	Glu	His	Lys	Lys	Leu 350	Tyr	Ser
Trp	Gln	Gln 355	Glu	Ala	G1n	Trp	Lys 360	Ala	Leu	Asn	Ser	Pro 365	Leu	Gly	Lys
Gly	Asn 370	Ser	Glu	Leu	Ser	Lys 375	Lys	Glu	Gln	Asp	Ser 380	Ser	Ser	Asp	Glu
Leu 385	Asn	Lys	Lys	Phe	G1n 390	Ser	Gln	Arg	Leu	Asp 395	Tyr	Ser	Ser	Ser	Ser 400
Ser	Glu	Λlа	Asn	Thr 405	Pro	Ser	Pro	lle	Leu 410	Thr	Pro	Ala	Leu	Met 415	Pro
Lys	His	Pro	Asn 420	Ser	Leu	Ser	Gly	Lys 425	Gly	Thr	Gln	Leu	Val 430	Pro	Ser
Ser	llis	Leu 435	Pro	Pro	Pro	Lys	Leu 440	Arg	He	Pro	Asn	Val 445	Phe	Ser	He
Ser	Val 450	Ala	Leu	Ala	Lys	Arg 455	His	Leu	Ser	Gln	Pro 460	G1n	Leu	Ser	Ser
Asp 465	Arg	Met	Phe	Gly	Thr 470	Asn	Arg	Asn	Ala	11e 475	Ser	Met	11e	Arg	Pro 480
Leu	Arg	Pro	Gln	Glu 485	Thr	Asp	Leu	Asp	Leu 490	Val	Asp	Gly	Asp	Ser 495	Thr

Glu Val Leu Glu Asn Met Asp Thr Ser Cys Asp Asp Gly Leu Phe Ser Tyr Asp Ser Leu Asp Ser Pro Asn Ser Asp Asp Gln Glu His Cys Asp Pro Ala Lys Lys Val Ala Tyr Ser Lys Pro Pro Thr Pro Pro Leu His Arg Phe Pro Ser Trp Glu Ser Arg Ile Tyr Ala Val Ala Lys Ser Gly lle Arg Met Ser Glu Ala Phe Asn Met Glu Ser Val Asn Lys Asn Ser Ala Ala Thr Leu Ser Tyr Thr Thr Ser Gly Leu Tyr Thr Ser Leu Ile Tyr Lys Asn Met Thr Thr Pro Val Tyr Thr Thr Leu Arg Gly Arg Arg Pro Lys <210> 4206 <211> 105 <212> PRT <213> Homo sapiens <400> 4206 Met Gly Gly Leu Leu Thr Pro Gly Leu Trp Cys Cys Arg Gln Pro Ser Pro Val Tyr Thr Ala Thr Gln Pro Gln Ala Val Gly Ser Gln Trp Pro Gly Gly Lys Gln Leu His Ser Pro Ala Leu Pro Gly Cys Pro Phe Gly Phe Gln Pro Gly Ser Arg Pro Ala Ser Thr Gly Lys Pro Val Thr Glu

Ala Trp Thr Gln Arg Trp Thr Arg His Leu Leu Ala Thr Cys Asp Leu

Gly Arg Ser Glu Ser Val Ala Arg Ser Thr Cys Ser Ala Ala Ala 11e

Asn Ser Leu Pro Val Ser Lys Arg Arg 100 105

<210> 4207 <211> 466 <212> PRT <213> Homo sapiens <400> 4207 Met Ala Leu Ala Gly Thr Gln Val Gly Pro Pro Pro Gln Glu Arg Ala 10 Pro Glu Pro lle Gly Arg Ala Trp Gly Pro Pro Gly Ile Thr Gln Pro 25 Ser Ala Pro Gly Ala Thr Val Gly Arg Arg Val Ser Val Ala Ala Gly 40 45 Pro Trp Leu His Gly Pro His Gly Ser Cys Glu Trp Val Arg Leu Pro 55 Gly Ser Gly Asp Arg Gln Arg Thr Asp Pro Arg Leu Gly Ser Trp Arg 65 70 75 80 Glu Gly Arg Arg Gly Ala Gly Gln Pro Gly Ser Asp Thr Val Ser Ser 90 Ser Gly Arg Arg Pro Ala Gly Ser Thr Gln Ala Gly Arg Gly Trp 105 110 Ala Ser Leu Glu Pro Ala Thr Ala Leu Val Gly Thr Trp Arg Arg Ala 115 120 125 His Val Ser Pro His Ala Ser His Arg Gly Ala Leu Ala Arg Arg Pro 135 140 Ala Arg Gly Ala Cys Ala Trp Asp Gly Ser Gln Asn Gln Arg Ala Pro 145 150 155 160 Val Arg Leu Ala Ser Thr Val Gly Leu Trp Glu Ser Leu Leu Phe lle 170 165

Phe Lys His Leu Gly Phe Ser Thr Gly Ser Trp Leu Leu Phe Pro Gln

Gly Met Ser Leu Arg Ser Arg Thr Arg Trp Gly Ser Gln Glu Ala Ala

200

195

185

Ala	Gln	Ser	Leu	His	Ala	Gly	Lys	Gly	Ser	His	Leu	Ser	Gly	Val	Gly
	210					215					220				
Ser	Leu	Val	Val	Gln	Gly	Ser	Ala	Gly	Gln	Ser	Leu	Gly	Cys	Ala	He
225					230					235					240
Thr	Λla	Thr	Ala	Phe	Leu	Leu	Gly	Ala	Ser	Thr	Ser	Ser	Lys	Thr	Gly
				245					250					255	
Leu	Val	Pro	Ala	Pro	Pro	Ala	Ala	Ser	Gly	Gln	Gly	His	Glu	Gly	Arg
			260					265					270		
Ala	Leu	Ser	Thr	Trp	Ala	Gly	Gly	Thr	Leu	Pro	Gly	Gly	Thr	Glu	Gly
		275					280					285			
Ala	Pro	Thr	Trp	Ala	Pro	Ala	Ser	Cys	Pro	Ser	Leu	Leu	Pro	Pro	Arg
	290					295					300				
Ala	Arg	Trp	Gly	Pro	Gly	Phe	Glu	Glu	Pro	Arg	Thr	Arg	Ala	Leu	Pro
305					310					315					320
Ala	Gly	Ser	Trp	Arg	Arg	Ala	Ser	Gly	Leu	Gly	Asn	Arg	Gly	Arg	Lys
				325					330					335	
Asn	Ser	Ser	Arg	Pro	Gly	Thr	Lys	Gly	Ala	Ser	Gly	Arg	Thr	His	Gly
			340					345					350		
Trp	Pro	Arg	Ala	Arg	G1y	Val	Thr	Ala	Gl y	Arg	Pro	Pro	Gly	Pro	Gly
		355					360					365			
Pro	Val	Arg	Gly	Gln	Tyr	61 y	Asp	Pro	Ala	Cys	Arg	Trp	Gln	Ser	Val
	370					375					380				
	Cys	Val	Trp	Gly		G1n	His	Arg	Leu	Gly	Gly	Gly	Trp	Gly	Arg
385					390					395					400
Gly	Ser	Arg	Ser		Gln	Gly	Leu	Gly		Ser	Gly	Thr	Gly	Arg	Gly
				405					410					415	
Glu	Gln	Thr		Ser	Ser	Ser	G1 y		His	Pro	Gly	Thr	Ala	Ala	Pro
			420					425					430		
Thr	Arg		Ala	Pro	His	Pro		Pro	Arg	Ser	Pro		Thr	Ala	G1y
		435	_				440					445			
Pro		Val	Ser	GJu	Gly		Ser	Arg	Ala	Gly		Asp	Gln	Trp	Ser
D	450					455					460				
Pro	GTy														
465															

<210> 4208

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<211> 612
<212> PRT
<213> Homo sapiens
<400> 4208
Met Leu Leu Phe Arg Asp Cys Glu Glu Ala Thr Asp Phe Leu Thr Cys
                  5
                                     10
His Gly Leu Thr Val Ser Asp Gly Cys Val Glu Leu Asn Arg Ser Ala
             20
                                  25
Phe Leu Glu Pro Glu Gly Leu Ser Lys Thr Arg Lys Ser Val Phe 11e
                              40
                                                  45
Thr Arg Lys Leu Thr Val Ser Val Gly Glu lle Val Asn Gly Gly Pro
                         55
                                              60
Leu Pro Pro Val Pro Arg His Thr Pro Val Cys Ser Phe Asn Ser Gln
                     70
                                          75
                                                              80
Asn Lys Tyr Ile Gly Glu Ser Leu Ala Ala Glu Leu Pro Val Ser Thr
                 85
                                      90
Gln Arg Pro Gly Ser Asp Thr Val Gly Gly Gly Arg Gly Glu Glu Cys
            100
                                 105
                                                     110
Gly Val Glu Pro Asp Ala Pro Leu Ser Ser Leu Pro Gln Ser Leu Pro
                             120
                                                 125
Ala Pro Ala Pro Ser Pro Val Pro Leu Pro Pro Val Leu Ala Leu Thr
                        135
                                             140
Pro Ser Val Ala Pro Ser Leu Phe Gln Leu Ser Val Gln Pro Glu Pro
                    150
                                         155
                                                             160
Pro Pro Pro Glu Pro Val Pro Met Tyr Ser Asp Glu Asp Leu Ala Gln
                165
                                     170
Val Val Asp Glu Leu 11e Gln Glu Ala Leu Gln Arg Asp Cys Glu Glu
            180
                                 185
                                                     190
Val Gly Ser Ala Gly Ala Ala Tyr Ala Ala Ala Ala Leu Gly Val Ser
                            200
                                                 205
Asn Ala Ala Met Glu Asp Leu Leu Thr Ala Ala Thr Thr Gly lle Leu
                        215
                                             220
Arg His 11e Ala Ala Glu Glu Val Ser Lys Glu Arg Glu Arg Arg Glu
225
                    230
                                         235
                                                             240
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Gln	Glu	Arg	Gln		Ala	Glu	Glu	Glu		Leu	Lys	Gln	Glu		Glu
				245					250					255	
Leu	Val	Leu	Ser	G] u	Leu	Ser	Gln	Gly	Leu	Ala	Val	Glu	Leu	Met	G1u
			260					265					270		
Arg	Val	Met	Met	Glu	Phe	Val	Arg	Glu	Thr	Cys	Ser	Gln	Glu	Leu	Lys
		275					280					285			
Asn	Ala	Val	Glu	Thr	Asp	G1n	Arg	Val	Arg	Val	Ala	Arg	Cys	Cys	Glu
	290					295					300				
Asp	Val	Cys	Ala	His	Leu	Val	Asp	Leu	Phe	Leu	Val	Glu	Glu	Ile	Phe
305					310					315					320
Gln	Thr	Ala	Lys	Glu	Thr	Leu	Gln	Glu	Leu	Gln	Cys	Phe	Cys	Lys	Tyr
				325					330					335	
Leu	Gln	Arg	Trp	Arg	Glu	Ala	Val	Thr	Ala	Arg	Lys	Lys	Leu	Arg	Arg
			340					345					350		
Gln	Met	Arg	Ala	Phe	Pro	Ala	Ala	Pro	Cys	Cys	Val	Asp	Val	Ser	Asp
		355					360					365			
Arg	Leu	Arg	Ala	Leu	Ala	Pro	Ser	Ala	Glu	Cys	Pro	11e	Ala	Glu	Glu
	370					375					380				
Asn	Leu	Ala	Arg	Gly	Leu	Leu	Asp	Leu	G1 y	His	Ala	Gly	Arg	Leu	Gly
385					390					395					400
He	Ser	Cys	Thr	Arg	Leu	Arg	Arg	Leu	Arg	Asn	Lys	Thr	Ala	His	Gln
				405					410					415	
Met	Lys	Val	G1n	His	Phe	Tyr	Gln	Gln	Leu	Leu	Ser	Asp	Val	Ala	Trp
			420					425					430		
Ala	Ser	Leu	Asp	Leu	Pro	Ser	Leu	Val	Ala	Glu	His	Leu	Pro	Gly	Arg
		435					440					445			
Gln	Glu	His	Val	Phe	Trp	Lys	Leu	Val	Leu	Va]	Leu	Pro	Asp	Val	Glu
	450					455					460				
Glu	Gln	Ser	Pro	Glu	Ser	Cys	Gly	Arg	Пе	Leu	Mla	Asn	Trp	Leu	Lys
465					470					475					480
Val	Lys	Phe	Met	Gly	Asp	Glu	Gly	Ser	Va]	Asp	Asp	Thr	Ser	Ser	Asp
				485					490					495	
Ala	GI y	Gly	He	Gln	Thr	Leu	Ser	Leu	Phe	Asn	Ser	Leu	Ser	Ser	Lys
			500					505					510		
Gly	Asp	Gln	Met	11e	Ser	Val	Asn	Val	Cys	Пе	Lys	Val	Ala	His	G1y
		515					520					525			

Ala Leu Ser Asp Gly Ala lle Asp Ala Val Glu Thr Gln Lys Asp Leu Leu Gly Ala Ser Gly Leu Met Leu Leu Leu Pro Pro Lys Met Lys Ser Glu Asp Met Ala Glu Glu Asp Val Tyr Trp Leu Ser Ala Leu Leu Gln Leu Lys Gln Leu Leu Gln Ala Lys Pro Phe Gln Pro Ala Leu Pro Leu Val Val Leu Val Pro Ser Pro Gly Gly Asp Ala Val Glu Lys Glu Val Glu Asp Gly Leu

<210> 4209

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4209

Met Ala Ser Met Gly Leu Gln Val Met Gly Ile Ala Leu Ala Val Leu Gly Trp Leu Ala Val Met Leu Cys Cys Ala Leu Pro Met Trp Arg Val Thr Ala Phe Ile Gly Ser Asn Ile Val Thr Ser Gln Thr lle Trp Glu Gly Leu Trp Met Asn Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala Arg Ala Leu Val 11e 11e Ser 11e 11e Val Ala Ala Leu Gly Val Leu Leu Ser Val Val Gly Gly Lys Cys Thr Asn Cys Leu Glu Asp Glu Ser

Ala Lys Ala Lys Thr Met lle Val Ala Gly Val Val Phe Leu Leu Ala

Gly Leu Met Val Ile Val Pro Val Ser Trp Thr Ala His Asn Ile Ile Gln Asp Phe Tyr Asn Pro Leu Val Ala Ser Gly Gln Lys Arg Glu Met Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Gly Gly Gly Leu Leu Cys Cys Asn Cys Pro Pro Arg Thr Asp Lys Pro Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Ala Ala Ala Ser Asn Tyr Val

<210> 4210

<211> 211

<212> PRT

<213> Homo sapiens

<400> 4210

Met Ser Cys Thr Ile Glu Lys Ile Leu Thr Asp Ala Lys Thr Leu Leu Glu Arg Leu Arg Glu His Asp Ala Ala Ala Glu Ser Leu Val Asp Gln Ser Ala Ala Leu His Arg Arg Val Ala Ala Met Arg Glu Ala Gly Thr Ala Leu Pro Asp Gln Val Arg Gln Arg Tyr Gln Glu Asp Ala Ser Asp Met Lys Asp Met Ser Lys Tyr Lys Pro His 11e Leu Leu Ser Gln Glu Asn Thr Gln lle Arg Asp Leu Gln Gln Glu Asn Arg Glu Leu Trp lle Ser Leu Glu Glu His Gln Asp Ala Leu Glu Leu He Met Ser Lys Tyr Arg Lys Gln Met Leu Gln Leu Met Val Ala Lys Lys Ala Val Asp Ala

```
Glu Pro Val Leu Lys Ala His Gln Ser His Ser Ala Glu Ile Glu Ser
                        135
Gln Ile Asp Arg lle Cys Glu Met Gly Glu Val Met Arg Lys Ala Val
145
                    150
                                        155
                                                             160
Gln Val Asp Asp Asp Gln Phe Cys Lys Ile Gln Glu Lys Leu Ala Gln
                165
                                    170
Leu Glu Leu Glu Asn Lys Glu Leu Arg Glu Leu Leu Ser Ile Ser Ser
            180
                                185
Glu Ser Leu Gln Ala Arg Lys Glu Asn Ser Met Asp Thr Ala Ser Gln
        195
                            200
                                                 205
Ala Ile Lys
    210
<210> 4211
<211> 122
<212> PRT
<213> Homo sapiens
<400> 4211
Met Cys Tyr Leu Leu Leu Leu Ile Gln Thr Ala Glu Leu Leu Ile
                                     10
His Pro Gln Gly Leu Gln Ala Val Ser Asn Gly Glu Ser Ala Leu Lys
                                 25
Gly Thr Arg Pro Thr Phe Ser Ser Pro Phe lle Leu Val Thr Glu Gly
                             40
                                                 45
Arg Lys Glu Trp Glu Gly Val Phe Leu Ser Ser Gly Trp Lys Gly Asn
                         55
Thr Leu Ser Asn Tyr Tyr lle Ser Leu Val Phe Tyr Tyr Ser Arg lle
65
                     70
                                         75
                                                              80
Leu Gln Pro Tyr Phe Tyr Cys Leu Trp Gly Lys Leu Glu Met Val Thr
                                     90
Leu lle Arg Ser Val Trp Arg Gly lle Asn Gly Gly Asp Lys lle Gln
                                105
                                                    110
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Leu Val Leu Glu Asn Val Lys Val Leu Lys

120

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<211> 1082
<212> PRT
<213> Homo sapiens
<400> 4212
Met Ala Pro Glu Asp Lys Asp Pro Asp Leu Glu Thr Ile Leu Asn Ile
  1
                                      10
                                                          15
Pro Ser Ala Leu Thr Pro Thr Val Val Pro Val Ile Val Thr Val Pro
                                  25
Gln Ser Lys Ala Lys Gly Lys Ile Lys Gly Lys Glu Lys Pro Lys Glu
                             40
                                                 45
Ser Leu Lys Glu Glu Glu His Pro Lys Glu Glu Glu Lys Lys Glu Glu
     50
                         55
Glu Val Glu Pro Glu Pro Val Leu Gln Glu Thr Leu Asp Val Pro Thr
                     70
                                         75
Phe Gln Ser Leu Asn Val Ser Cys Pro Ser Gly Leu Leu Leu Thr Phe
                 85
                                     90
Ile Gly Gln Glu Ser Thr Gly Gln Tyr Val lle Asp Glu Glu Pro Thr
                                 105
Trp Asp Ile Met Val Arg Gln Ser Tyr Pro Gln Arg Val Lys His Tyr
                            120
                                                125
Glu Phe Tyr Lys Thr Val Met Pro Pro Ala Glu Gln Glu Ala Ser Arg
    130
                        135
                                            140
Val 11e Thr Ser Gln Gly Thr Val Val Lys Tyr Met Leu Asp Gly Ser
                    150
                                        155
Thr Gln 11e Leu Phe Ala Asp Gly Ala Val Ser Arg Ser Pro Asn Ser
                165
                                    170
Gly Leu Ile Cys Pro Pro Ser Glu Met Pro Ala Thr Pro His Ser Gly
                                185
                                                     190
Asp Leu Met Asp Ser Ile Ser Gln Gln Lys Ser Glu Thr Ile Pro Ser
        195
                            200
                                                205
Glu Ile Thr Asn Thr Lys Lys Gly Lys Ser His Lys Ser Gln Ser Ser
```

<210> 4212

Met	Ala	His	Lys	Gly	Glu	He	His	Asp	Pro	Pro	Pro	Glu	Ala	Val	G1n
225					230					235					240
Thr	Val	Thr	Pro	Val 245	Glu	Val	His	lle	Gly 250	Thr	Trp	Phe	Thr	Thr 255	Thr
Pro	Glu	Gly	Asn 260	Arg	lle	Gly	Thr	Lys 265	Gly	Leu	Glu	Arg	11e 270	Ala	Asp
Leu	Thr	Pro 275	Leu	Leu	Ser	Phe	Gln 280	Ala	Thr	Asp	Pro	Val 285	Asn	Gly	Thr
Val	Met 290	Thr	Thr	Arg	Glu	Asp 295	Lys	Val	Val	Ile	Val 300	Glu	Arg	Lys	Asp
G1y 305	Thr	Arg	Ile	Val	Asp 310	His	Ala	Asp	Gly	Thr 315	Arg	Ile	Thr	Thr	Phe 320
Tyr	Gln	Val	Tyr	Glu 325	Asp	Gln	lle	He	Leu 330	Pro	Λsp	Asp	Gln	Glu 335	Thr
Thr	Glu	Gly	Pro 340	Arg	Thr	Val	Thr	Arg 345	Gln	Val	Lys	Cys	Met 350	Arg	Va]
Glu	Ser	Ser 355	Arg	Tyr	Ala	Thr	Val 360	lle	Ala	Asn	Cys	Glu 365	Asp	Ser	Ser
Cys	Cys 370	Ala	Thr	Phe	Gly	Asp 375	G1 y	Thr	Thr	Ile	11e 380	Ala	Lys	Pro	G1n
G1 y 385	Thr	Tyr	Gln	Val	Leu 390	Pro	Pro	Asn	Thr	Gly 395	Ser	Leu	Tyr	Ile	Asp 400
Lys ·	Asp	Cys	Ser	Ala 405	Val	Tyr	Cys	His	Glu 410	Ser	Ser	Ser	Asn	11e 415	Tyr
Tyr	Pro	Phe	Gln 420	Lys	Arg	Glu	Gln	Leu 425	Arg	Ala	Gly	Arg	Tyr 430	11e	Met
Arg	His	Thr 435	Ser	Glu	Va]	He	Cys 440	Glu	Val	Leu	Asp	Pro 445	Glu	Gly	Asn
Thr	Phe 450	Gln	Val	Met	Ala	Asp 455	Gly	Ser	He	Ser	Thr 460	lle	Leu	Pro	Glu
Lys 465	Lys	Leu	Glu	Asp	Asp 470	Leu	Asn	Glu	Lys	Thr 475	Glu	Gly	Tyr	Asp	Ser 480
Leu	Ser	Ser	Met	His 485	Leu	Glu	Lys	Asn	His 490	Gln	G1n	He	Tyr	Gly 495	Glu
His	Val	Pro	Arg	Phe	Phe	Val	Met	Tyr	Ala	Asp	Gly	Ser	Gly	Met	G1u

	Leu	Leu	Arg	Asp	Ser	Asp	Пe	Glu	Glu	Tyr	Leu	Ser	Leu	Ala	Tyr	Lys
			515					520					525			
	G]u	Ser	Asn	Thr	Val	Val	Leu	Gln	Glu	Pro	Val	Gln	Glu	Gln	Pro	Gly
		530					535					540				
	Thr	Leu	Thr	He	Thr	Val	Leu	Arg	Pro	Phe	His	Glu	Ala	Ser	Pro	Trp
	545					550					555					560
	Gln	Val	Lys	Lys	Glu	Asp	Thr	Пе	Val	Pro	Pro	Asn	Leu	Arg	Ser	Arg
					565					570					575	
•	Ser	Trp	Glu	Thr	Phe	Pro	Ser	Val	Glu	Lys	Lys	Thr	Pro	Gly	Pro	Pro
				580					585					590		
	Phe	G1y	Thr	Gln	He	Trp	Lys	G] y	Leu	Cys	He	Glu	Ser	Lys	Gln	Leu
			595					600					605			
	Val	Ser	Ala	Pro	Gly	Ala	He	Leu	Lys	Ser	Pro	Ser	Val	Leu	Gln	Met
		610					615					620				
		Gln	Phe	He	Gln		Glu	Val	He	Lys	Asn	G]u	Val	Lys	Leu	Arg
	625					630					635					640
	Leu	Gln	Val	Ser		Lys	Лsp	Tyr	He		Tyr	He	Leu	Lys		Glu
					645					650					655	
	Asp	Glu	Leu		Glu	Met	Met	Ala	Lys	Asp	Ser	Arg	Thr		Glu	Glu
		0.1		660			-		665					670		_
	Arg	Gly		Ala	Ala	Asp	Leu		Lys	Leu	Val	Met		Phe	Pro	Lys
	М	C1	675	Т1	TI.	1 .	C	680	V 1	TI	C.I.	u ı	685	4.7	11.	
	мет		61u	Inr	ınr	Lys		1118	Val	inr	61u		Ala	Ala	HIS	Leu
	The	690	Lou	Dho	Luc	Cln	695	Lau	Ala	Thu	Dno	700 Pro	Lua	Cva	Dmo	Duo
	705	ASP	Leu	rne	Lys	710	361	Leu	Ala	1111	715	LIO	LyS	Cys	110	720
		Thr	Pho	C.Lv	lve		Pho	Pho	Glu	lvc		Trn	Ara	Hic	Thr	
	пър	1111	1116	Oly	725	лор	THE	1116	Oru	730	1111	пр	лів	1112	735	піа
	Ser	Ser	lvs	Aro		lvs	Glu	lvs	He		lve	Thr	Aro	lve		116
	001	001	12,0	740	1312	13:0	014	13,0	745	пор	13,10	1113	8	750	014	110
	Glu	Thr	Thr		Asn	Tyr	l.eu	Met	Asp	He	Lvs	Asn	Arg		11e	Pro
			755					760			-,-		765			
	Pro	Phe		Lys	Ser	Glu	Leu	Asn	G]n	Leu	Tvr	G1n		Gln	Tvr	Asn
		770		-			775				-	780			-	
).	His	Leu	Asp	Ser	Leu	Ser	Lys	Lys	Leu	Pro	Ser	Phe	Thr	Lys	Lys	Asn

785					790					795					800
Glu	Asp	Ala	Asn	Glu	Thr	Ala	Val	Gln	Asp	Thr	Ser	Asp	Leu	Asn	Leu
				805					810					815	
Asp	Phe	Lys	P.ro	His	Lys	Val	Ser	Glu	Gln	Lys	Ser	Ser	Gly	Val	Pro
			820					825					830		
Ser	Leu	Pro	Lys	Pro	Glu	He	Ser	Ala	Asp	Lys	Lys	Asp	Phe	Thr	Ala
		835					840					845			
G1n	Asn	Gln	Thr	Glu	Asn	Leu	Thr	Lys	Ser	Pro	Glu	Glu	Ala	Glu	Ser
	850					855					860				
Tyr	Glu	Pro	Val	Lys	Ile	Pro	Thr	Gln	Ser	Leu	Leu	Gln	Asp	Val	Ala
865					870					875					880
Gly	GIn	Thr	Arg	Lys	Glu	Lys	Val	Lys	Leu	Pro	His	Tyr	Leu	Leu	Ser
				885					890					895	
Ser	Lys	Pro	Lys	Ser	Gln	Pro	Leu	Ala	Lys	Val	Gln	Asp	Ser	Val	Gly
			900					905					910		
Gly	Lys	Val	Asn	Thr	Ser	Ser	Val	Ala	Ser	Ala	Ala	He	Asn	Asn	Ala
		915					920					925			
Lys	Ser	Ser	Leu	Phe	Gly	Phe	His	Leu	Leu	Pro	Ser	Ser	Val	Lys	Phe
	930					935					940				
Gly	Val	Leu	Lys	Glu	Gly	His	Thr	Tyr	Ala	Thr	Val	Val	Lys	Leu	Lys
945					950					955					960
Asn	Val	Gly	Val	Asp	Phe	Cys	Arg	Phe	Lys	Val	Lys	Gln	Pro	Pro	Pro
				965					970					975	
Ser	Thr	Gly	Leu	Lys	Val	Thr	Tyr	Lys	Pro	Gly	Pro	Val	Ala	Ala	G] y
			980					985					990		
Met	Gln	Thr	Glu	Leu	Asn	He	Glu	Leu	Phe	Ala	Thr	Ala	Val	Gly	Glu
		995					1000					1005			
		Ala	Lys	Gly			His	He	Ser	His	Asn	lle	Glu	He	Met
	1010					1015					1020				
		His	Glu			Phe	Leu	Pro			Ala	Thr	Val		
1029					1030					1035					1040
Ser	Ser	Asn			Lys	Arg	Pro			Phe	Pro	Gln			Glu
				1045		m.			1050		_			1055	0.7
Asn	Pro			GIn	Arg	Thr	Ser		He	Tyr	Ser			Leu	Gly
V - 1	DI		1060	Δ.,		V. 1	Sor	1065	11.2				1070		
V (3)	rno	3101	>01°	arc	1 1/ C	VOI	> 0 1º	Pro	HIC						

<210> 4213 <211> 254 <212> PRT <213> Homo sapiens <400> 4213

Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Ala Ile Leu Lys Gly

1 5 10 15

Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Ala Leu Val Gln 20 25 30 .

Pro Gly Arg Ser Leu Arg Leu Ser Cys Lys Ser Ser Gly Phe Thr Phe
35 40 45

Gly Asp Tyr Gly 11e Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu 50 55 60

Glu Trp Val Gly Phe Ile Arg Asn Lys Ala Phe Gly Gly Thr Thr Ile
65 70 75 80

Tyr Ala Ala Ser Val Glu Gly Arg Phe Ser lle Ser Arg Asp Asp Ser 85 90 95

Lys Gly Val Ala Tyr Leu Gln Met Ser Ser Leu Gln Thr Glu Asp Thr
100 105 110

Ala Val Tyr Tyr Cys Thr Arg Asp lle Phe Val Thr Gly lle Tyr His 115 120 125

Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser 130 135 140

Gly Glu Ser Ser Gln Pro Leu Ser Cys Phe Gln Ser Glu Gly Phe His 145 150 155 160

Tyr lle Phe Gly Gly Lys Tyr Val Cys Trp Val Ser Cys Gln Lys Ser 165 170 175

Arg Gly Thr Val Gly Gly Ala Arg Glu Asn Val Leu Arg Gln Arg Arg 180 185 190

Pro Asn Arg Arg Val Pro Arg Ala Pro Asp Val Pro Ser Ser Ala 195 200 205

Gln Gln His Gly Ser Val Cys Gly Gln Gly His Pro Gly Pro Leu Gly

<210> 4214

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4214

Met Pro Ser Pro Pro Thr Ala Ser Leu Leu Met Gln Gly Ser Gln Pro
1 5 10 15

His Pro Arg Ala Leu His Ile Arg Phe His Ser Cys Lys Tyr Asn Gly 20 25 30

Pro Pro Ser Val Leu Gln Ile Ser Pro Ala His His Trp Ala Ser Arg
35 40 45

Ala Ala Cys Pro Leu Leu Arg His Leu Ala Gly Gly Ser Leu Pro
50 55 60

Cys Ser Pro Cys Gly Arg Asp Pro Arg Ala Leu Val Pro Ala Cys His 65 70 75 80

Ser Pro Cys Cys IIe Ser Leu Pro Pro Leu Pro Glu Glu Phe Leu Leu 85 90 95

 $\begin{array}{c} \text{Arg Ala Cys Ser Leu Asn Trp} \\ 100 \end{array}$

<210> 4215

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4215

Met Leu Lys Phe Ser Leu Val Phe Leu Phe Phe Leu Phe Pro Arg

l				5					10					15	
Arg	Ser	Leu	Ala	Leu	Ser	Pro	Arg	Leu	Glu	Tyr	Asn	Gly	Met	lle	Ser
			20					25					30		
Thr	His	Cys	Asn	Leu	His	Leu	Leu	Gly	Ser	Ser	Asp	Ser	Pro	Ala	Ser
		35					40					45			
Ala	Ser	Arg	Val	Ala	Arg	He	Thr	Gly	Ala	His	His	Asn	Val	Trp	Pro
	50					55					60				
lle	Phe	Cys	He	Phe	Ser	Arg	Asp	Arg	Val	Ser	Pro	Cys	Trp	Pro	Gly
65					70					75					80
Trp	Ser	He	Thr	Pro	Asp	Leu	Val	He	Cys	Leu	Pro	Gln	Pro	Pro	Lys
				85					90					95	
Val	Leu	Gly	Leu	Gln	Ala										
			100												
(0.1)	\\ A6														
)> 42														
	> 76				•										
\Z12	2> PF	(1													
7915) LL	.mo (anni	an a											
<213	8> Ho	omo s	sapie	ens											
			sapie	ens											
<400)> 42	216			Phe	Gln	Met	Tvr	Asp	Glu	Glv	Glu	Arg	Glu	lle
<400 Met)> 42	216			Phe	Gln	Met	Tyr		Glu	Gly	Glu	Arg		lle
<400 Met)> 42 His	216 Asn	Leu	lle 5					10					15	
<400 Met)> 42 His	216 Asn	Leu	lle 5					10				Arg Trp 30	15	
<400 Met 1 Asn)> 42 His 11e	216 Asn Thr	Leu Ser 20	lle 5 Ala	Leu	Ala	Glu	Lys 25	10 11e	Lys	Val	Asn	Trp	15 Thr	Pro
<400 Met 1 Asn)> 42 His 11e	216 Asn Thr	Leu Ser 20	lle 5 Ala	Leu	Ala	Glu	Lys 25	10 11e	Lys	Val	Asn	Trp	15 Thr	Pro
<400 Met l Asn Glu)> 42 His lle	216 Asn Thr Asn 35	Leu Ser 20 Lys	lle 5 Ala Glu	Leu His	Ala Leu	Glu Leu 40	Lys 25 Gln	10 11e Gly	Lys Leu	Val Leu	Asn Pro 45	Trp	15 Thr Val	Pro Gln
<400 Met l Asn Glu)> 42 His lle	216 Asn Thr Asn 35	Leu Ser 20 Lys	lle 5 Ala Glu	Leu His	Ala Leu	Glu Leu 40	Lys 25 Gln	10 11e Gly	Lys Leu	Val Leu	Asn Pro 45	Trp 30 Asp	15 Thr Val	Pro Gln
<400 Met l Asn Glu Val)> 42 His 11e 11e Pro 50	216 Asn Thr Asn 35 Thr	Leu Ser 20 Lys Ser	lle 5 Ala Glu Val	Leu His Lys	Ala Leu Asp 55	Glu Leu 40 Met	Lys 25 Gln Arg	10 11e Gly Tyr	Lys Leu Cys	Val Leu Gln 60	Asn Pro 45 Val	Trp 30 Asp	15 Thr Val Phe	Pro Gln Gln
<400 Met l Asn Glu Val)> 42 His 11e 11e Pro 50	216 Asn Thr Asn 35 Thr	Leu Ser 20 Lys Ser	lle 5 Ala Glu Val	Leu His Lys	Ala Leu Asp 55	Glu Leu 40 Met	Lys 25 Gln Arg	10 11e Gly Tyr	Lys Leu Cys	Val Leu Gln 60	Asn Pro 45 Val	Trp 30 Asp Ser	15 Thr Val Phe	Pro Gln Gln
<400 Met 1 Asn Glu Val	His lle lle Pro 50 Asp	216 Asn Thr Asn 35 Thr	Leu Ser 20 Lys Ser Val	lle 5 Ala Glu Val	Leu His Lys Leu 70	Ala Leu Asp 55 Glu	Glu Leu 40 Met Ser	Lys 25 Gln Arg	10 Ile Gly Tyr Phe	Lys Leu Cys Thr 75	Val Leu Gln 60 Val	Asn Pro 45 Val	Trp 30 Asp Ser	15 Thr Val Phe Leu	Pro Gln Gln Pro 80
<400 Met 1 Asn Glu Val	His lle lle Pro 50 Asp	216 Asn Thr Asn 35 Thr	Leu Ser 20 Lys Ser Val	lle 5 Ala Glu Val	Leu His Lys Leu 70	Ala Leu Asp 55 Glu	Glu Leu 40 Met Ser	Lys 25 Gln Arg	10 Ile Gly Tyr Phe	Lys Leu Cys Thr 75	Val Leu Gln 60 Val	Asn Pro 45 Val	Trp 30 Asp Ser Pro	15 Thr Val Phe Leu	Pro Gln Gln Pro 80
<400 Met I Asn Glu Val Asp 65 Asp	His His He He Asp Glu	Asn Thr Asn 35 Thr	Leu Ser 20 Lys Ser Val	Ile 5 Ala Glu Val Ser His 85	Leu His Lys Leu 70 Leu	Ala Leu Asp 55 Glu Lys	Glu Leu 40 Met Ser Cys	Lys 25 Gln Arg Ala	10 11e Gly Tyr Phe Met 90	Lys Leu Cys Thr 75 Lys	Val Leu Gln 60 Val	Asn Pro 45 Val Arg	Trp 30 Asp Ser Pro	15 Thr Val Phe Leu Thr 95	Pro Gln Gln Pro 80 Val
<400 Met I Asn Glu Val Asp 65 Asp	His His He He Asp Glu	Asn Thr Asn 35 Thr	Leu Ser 20 Lys Ser Val	Ile 5 Ala Glu Val Ser His 85	Leu His Lys Leu 70 Leu	Ala Leu Asp 55 Glu Lys	Glu Leu 40 Met Ser Cys	Lys 25 Gln Arg Ala	10 11e Gly Tyr Phe Met 90	Lys Leu Cys Thr 75 Lys	Val Leu Gln 60 Val	Asn Pro 45 Val Arg	Trp 30 Asp Ser Pro	15 Thr Val Phe Leu Thr 95	Pro Gln Gln Pro 80 Val

Leu Leu 11e Asp Trp Pro Glu Leu Lys Glu Ser Ile Pro Val Gly Arg Asp Leu Gln Asn Pro Ile Ile Val Gln Leu Cys Asp Asp Leu Cys Asp Ile Ile Cys Asp Ile Ile Cys Asp Ile Ile Cys Asp Ile I	125			120					115		
Phe Glu Glu Asn Thr Glu Ser He Ser Val Asg Gly He Trp Asg Leu Cys Phe Thr Trp Asg Leu Leu Cys Phe Thr Trp Asg Glu Leu Leu Ser Gly Pro Pro Asg Trp Pro Glu Leu Lys Glu Pro He Pro Pro Asg He Pro Pro Asg He Pro Pro Asg He Pro Asg He Pro Pro Asg He Pro Asg Pro Interpretation Asg	Asp Ser Ser Asn Leu Lys Thr Th	sp Se	Asp	Leu	Gly	Val	Gly	Ala	lle	Ser	Leu
150 150 170	140				135					130	
Pro Gly Pro Gly Asn Lys Asp Leu Cys Phe Thr Trp Asp Asp Phe 11e Arg Val Gln Leu Ile Ser Gly Pro Pro Asp Leu Leu Ile Asp Trp Pro Glu Leu Leu Glu Pro Pro Ile Ile Ile Pro Pro Ile Ile Glu Pro Pro Ile Ile Ile Ile Pro Ile	Ser Val Arg Gly 11e Lys Phe 11e	er Va	Ser	He	Ser	Gln	Thr	Asn	Glu	Gln	Phe
Ser Asp Phe Ile Arg Val Gln Leu Ile Ser Gly Pro Pro Arg Leu Ile Ile Asp Trp Pro Glu Leu Lys Glu Ser Ile Pro Arg Gly Arg Asp Leu Gln Asp Pro Ile Ile Val Glu Ser Ile Pro Arg Gly Arg Asp Leu Gln Asp Pro Ile Ile Val Gln Leu Cys Arg Asp Asp Leu Gln Arg Ile	155 160					150					145
Ser Asp Phe 11e Arg Val Gln Leu 11e Ser Gly Pro Arg Arg Pro Arg Leu Leu Leu Leu Lys Glu Ser Ile Pro Val Gly Arg Asp Leu Gln Asn Pro Ile Ile Val Gln Leu Cys Arg Arg Leu Gln Asn Pro Ile Ile Val Gln Leu Ile Ile Val Ile	Leu Cys Phe Thr Trp Arg Glu Pho	eu Cy	Leu	Asp	Lys	Asn	Gly	Pro	Pro	G1 y	Pro
Leu Leu Ile Asp Trp Pro Glu Leu Lys Glu Ser Ile Pro Va 195 Va 205 Va 206 Va 210 Va 215 Va 215 Va 220 Va 235 Va 245 Va 245	170 175	17					165				
Leu Leu Ile Asp Trp Pro Glu Leu Lys Glu Ser Ile Pro Val Gly Arg Asp Leu Gln Asn Pro Ile Ile Val Gln Leu Cys Asp Asp Asn Pro Ala Pro Val Gln His Val Lys Ile Ser Leu Cys Asp Ile Tre Ile Val Gln Leu Cys Ile Ile Val Ile Val Ile Ser Leu Ile	Ile Ser Gly Pro Pro Ala Lys Lee	e Se	Ile	Leu	Gln	Val	Arg	Ile	Phe	Asp	Ser
195	185 190	35	185					180			
Gly Arg Asp Leu Gln Asn Pro Ile Ile Val Gln Leu Cys Ast 210 310 215 320 220 220 220 220 220 220 220 220 220 220 220 225 226 226 226 225 225 225 225 225 225 225 225 225 225 225 225 225 225 225 225 225 226	Lys Glu Ser Ile Pro Val Ile Ası	s Gl	Lys	Leu	Glu	Pro	Trp	Asp	Ile	Leu	Leu
Asp Asn Pro Ala Pro Ala Pro Val Gln His Val Lys Ile Ser Leu T 225 230 235 235 Ser Asn Leu Lys Leu Met Pro Ser Asn Gln Gln His Lys T 245 250 250 Lys Gly Arg Ala Asn Leu Gly Val Phe Ser Val Phe Ala F 260 265 265 285 Glu His Thr Leu Gln Val Lys Ala Ile Tyr Asn Lys Ser Ile 275 280 285 285 Gly Pro Jle Ile Lys Leu Met Ile Leu Pro Asp Pro Glu Leu 290 295 300 310 315 Arg Leu Asn Val Lys Tyr Asp Lys Asp Lys Asp Ala Ser Phe Leu Aug 305 310 315 316 315 Leu Phe Thr Asp Phe Met Ile Ser Val Ile Ser Glu Asp Aug 325 330 310 315 316 Ser Thr Ser Gly Asn Arg Pro Ala Arg Ile Ser Met Lys Met T 340 345 336 345 336 Asp Lys Val Ile Lys Asp Asn Arg Pro Pro Ala Asp Asp Ala Asp Ala Gly Cys Phe T 370 375 365 380 Asp Lys Val Ile Lys Val Ile Pro Asn Lys Val Gly Thr Tyr Cys Ile Cys I	205)	200					195		
Asp Asp Pro Asp Asp Pro Asp Asp Asp Asp Asp Asp Leu Asp Asp Leu Asp Asp Leu Asp Asp Leu Asp	lle Val Gln Leu Cys Asp Gln Tr	e Va	lle	He	Pro	Asn	Gln	Leu	Asp	Arg	Gly
225 330 335 335 348 3	220				215					210	
Ser Asn Leu Lys Leu Met Pro Ser Asn Gln Gln His Lys The Lys Gly Arg Ala Asn Leu Gly Val Phe Ser Val Phe Ala Ile Ile Ile Ala Ile I	Val Lys Ile Ser Leu Thr Lys Ala	ıl Ly	Val	His	Gln	Val	Pro	Ala	Pro	Asn	Asp
Lys Gly Arg Ala Asn Leu Gly Val Phe Ser Val Phe Ala Phe P	235 240					230					225
Lys Gly Arg Ala Asn Leu Gly Val Phe Ser Val Phe Ala Fala Fala <td>Asn Gln Gln His Lys Thr Asp Glu</td> <td>sn Gl</td> <td>Asn</td> <td>Ser</td> <td>Pro</td> <td>Met</td> <td>Leu</td> <td>Lys</td> <td>Leu</td> <td>Asn</td> <td>Ser</td>	Asn Gln Gln His Lys Thr Asp Glu	sn Gl	Asn	Ser	Pro	Met	Leu	Lys	Leu	Asn	Ser
Glu His Thr Leu Gln Val Lys Ala Ile Tyr Asn Lys Ser Image: Ser	250 255	25					245				
Glu His Thr Leu Gln Val Lys Ala Ile Tyr Asn Lys Ser I 275	Phe Ser Val Phe Ala Pro Arg Gly	ie Se	Phe	Val	Gly	Leu	Asn	Ala	Arg	Gly	Lys
285 Ser Thr Ser Gly Asp 265 270	55	265					260				
Gly Pro Ile Ile Lys Leu Met Ile Leu Pro Asp Pro Glu Lys Ile 295 300 Ile 400 Il	lle Tyr Asn Lys Ser lle lle Glu	е Ту	He	Ala	Lys	Val	Gln	Leu	Thr	His	Glu
290	285)	280					275		
Arg Leu Asn Val Lys Tyr Asp Lys Asp Ala Ser Phe Leu Alamont 305 310 315 Leu Phe Thr Asp Phe Met Ille Ser Val 11e Ser Glu Asp Alamont 325 330 11e Lys Asn Ille Asn Pro Ala Arg Ille Ser Met Lys Met Tam 340 345 Ser Thr Ser Gly Asn Arg Pro Pro Ala Asn Ala Glu Thr Fam 355 360 Asn Lys Ille Lys Asp Asn Asp Lys Glu Asp Gly Cys Phe Tam 370 375 Asp Lys Val Ille Pro Asn Lys Val Gly Thr Tyr Cys Ille Graph	Leu Pro Asp Pro Glu Lys Pro Va	eu Pr	Leu	lle	Met	Leu	Lys	He	He	Pro	Gly
305	300				295					290	
Leu Phe Phe Thr Asp Phe Met IIe Ser Val IIe Ser Glu Asp A 325 325 330		sp Al	Asp	Lys	Asp		Lys	Val	Asn	Leu	Arg
325 330 11e Lys Asn 11e Asn Pro Ala Arg 11e Ser Met Lys Met T 340 345 3 Ser Thr Ser Gly Asn Arg Pro Pro Ala Asn Ala Glu Thr F 355 360 365 Asn Lys 11e Lys Asp Asn Asp Lys Glu Asp Gly Cys Phe T 370 375 380 Asp Lys Val 11e Pro Asn Lys Val Gly Thr Tyr Cys 11e G											
11e Lys Asn 11e Asn Pro Ala Arg 11e Ser Met Lys Met T 340 345 3			Val	Ser	He	Met		Asp	Thr	Phe	Leu
Ser Thr Ser Gly Asn Arg Pro Pro Ala Asn Ala Glu Thr F 355 360 365 Asn Lys 1le Lys Asp Asn Asp Lys Glu Asp Gly Cys Phe T 370 375 380 Asp Lys Val Ile Pro Asn Lys Val Gly Thr Tyr Cys Ile Gly Tyr Tyr Tyr Tyr Tyr Tyr Tyr Tyr Tyr Ty					. 1	Б		3.3		,	
Ser Thr Ser Gly Asn Arg Pro Pro Ala Asn Ala Glu Thr F 355 360 365 Asn Lys 1le Lys Asp Asn Asp Lys Glu Asp Gly Cys Phe T 370 Asp Lys Val Ile Pro Asn Lys Val Gly Thr Tyr Cys Ile C				Arg	Ala	Pro	Asn		Asn	Lys	He
355 360 365 Asn Lys 11e Lys Asp Asn Asp Lys Glu Asp Gly Cys Phe T 370 375 380 Asp Lys Val 11e Pro Asn Lys Val Gly Thr Tyr Cys 11e C				D	D				C	TI	C
Asn Lys 11e Lys Asp Asn Asp Lys Glu Asp Gly Cys Phe T 370 375 380 Asp Lys Val 11e Pro Asn Lys Val Gly Thr Tyr Cys 11e G		a As			Pro	Arg	Asn	Gly		Inr	Ser
370 375 380 Asp Lys Val Ile Pro Asn Lys Val Gly Thr Tyr Cys Ile C		l A			۸	Λ	A			1	Λ
Asp Lys Val Ile Pro Asn Lys Val Gly Thr Tyr Cys Ile C		u As	GJu	Lys		ASI	ASP	Lys	116		ASI
		I., TI.	C1	Ve 1		A a ==	Dros	71	Ve. 1		A
990 990		y IA.	01 À	Vdl	LyS		110	116	vdl	LyS	
Phe Met Met Asp Lys Thr Asp Ile Leu Asp Ser Glu Glo V		ы Ле	ىدا د	lle	Aen		lve	Asn	Met	Mot	

				405					410					415	
Glu	Val	Leu	Pro	Asn	Gln	Pro	Val	Lys	Leu	Val	Pro	Lys	He	Lys	Pro
			420					425					430		
Pro	Thr	Pro	Ala	Val	Ser	Asn	Val	Arg	Ser	Val	Ala	Ser	Arg	Thr	Leu
		435					440					445			
Val	Arg	Asp	Leu	His	Leu	Ser	He	Thr	Asp	Asp	Tyr	Asp	Asn	His	Thr
	450					455					460				
G1y	lle	Asp	Leu	Val	Gly	Thr	11e	He	Ala	Thr	He	Lys	Gly	Ser	Asn
465					470					475					480
Glu	Glu	Asp	Thr	Asp	Thr	Pro	Leu	Phe	Ile	Gly	Lys	Val	Arg	Thr	Leu
				485					490					495	
Glu	Phe	Pro	Phe	Val	Asn	Gly	Ser	Ala	Glu	He	Met	Ser	Leu	Val	Leu
			500					505					510		
Ala	Glu	Ser	Ser	Pro	Gly	Arg	Asp	Ser	Thr	Glu	Tyr	Phe	Пе	Val	Phe
		515					520					525			
Glu	Pro	Arg	Leu	Pro	Leu	Leu	Ser	Arg	Thr	Leu	G]u	Pro	Tyr	He	Leu
	530					535					540				
Pro	Phe	Met	Phe	Tyr	Asn	Asp	Va]	Lys	Lys	Gln	Gln	Gln	Met	Ala	Ala
545					550					555					560
Leu	Thr	Lys	Glu	Lys	Asp	Gln	Leu	Ser	Gln	Ser	He	Val	Met	Tyr	Lys
				565					570					575	
Ser	Leu	Phe	Glu	Ala	Ser	Gln	Gln	Leu	Leu	Asn	Glu	Met	Lys	Cys	Gln
			580					585					590		
Val	Glu	Glu	Ala	Arg	Leu	Lys	Glu	Ala	Gln	Leu	Arg	Asn	Glu	Leu	Lys
		595					600					605			
Пе	His	Asn	lle	Asp	lle	Pro	Thr	Thr	Gln	Gln	Val	Pro	His	He	Glu
	610					615					620				
	Leu	Leu	Lys	Arg		Leu	Ser	Glu	Gln		Glu	Leu	Lys	Lys	
625					630					635					640
Pro	Arg	Arg	Ser		Thr	Leu	Pro	Asn		Thr	Lys	Gly	Ser		Asp
				645					650					655	
Val	Leu	Gly		He	Ala	His	Leu		Gln	Пе	Glu	Asp		Arg	Ala
			660	~				665					670		
Ala	Met		He	Ser	Trp	His		Ala	Ser	Asp	Met		Cys	Val	Val
<i>m</i> .		675					680			-		685	<i>m</i> 1		
Thr	Leu	lhr	lhr	Asp	Ala	Ala	Arg	Arg	He	Tyr	Asp	Glu	Thr	Gln	GIV

Arg Gln Gln Val Leu Pro Leu Asp Ser lle Tyr Lys Lys Thr Leu Pro Asp Trp Lys Arg Ser Leu Pro His Phe Arg Asn Gly Lys Leu Tyr Phe Lys Pro Ile Gly Asp Pro Val Phe Ala Arg Asp Leu Leu Thr Phe Pro Asp Asn Val Glu His Cys Glu Thr Gly Cys

<210> 4217

<211> 171

<212> PRT

<213> Homo sapiens

<400> 4217 Met Lys Cys Ile Pro Tyr Ser Val Leu Leu Lys Asp Leu Glu Met Arg Asn Leu Arg Glu Leu Glu Asp Leu 11e 11e Glu Ala Val Tyr Thr Asp lle lle Gln Gly Lys Leu Asp Gln Arg Asn Gln Leu Leu Glu Val Asp Phe Cys 11e Gly Arg Asp 11e Arg Lys Lys Asp 11e Asn Asn 11e Val Lys Thr Leu His Glu Trp Cys Asp Gly Cys Glu Ala Val Leu Leu Gly lle Glu Gln Gln Val Leu Arg Ala Asn Gln Tyr Lys Glu Asn His Asn Arg Thr Gln Gln Val Glu Ala Glu Ile Ala Cys Phe Gln Arg Glu Lys Arg Asp Val Pro Leu Leu Asn Leu Ile Thr Thr Ala Phe Phe Trp

Leu Pro Thr Ser Arg Arg His Ser Lys Pro Pro His Pro Pro Arg Leu

<210> 4218

<211> 608

<212> PRT

<213> Homo sapiens

<400> 4218

Met Arg His Thr Ser Glu Val 11e Cys Glu Val Leu Asp Pro Glu Gly
1 5 10 15

Asn Thr Phe Gln Val Met Ala Asp Gly Ser lle Ser Thr Ile Leu Pro 20 25 30

Glu Lys Lys Leu Glu Asp Asp Leu Asn Glu Lys Thr Glu Gly Tyr Asp

35 40 45

Ser Leu Ser Ser Met His Leu Glu Lys Asn His Gln Gln Ile Tyr Gly 50 55 60

Glu His Val Pro Arg Phe Phe Val Met Tyr Ala Asp Gly Ser Gly Met
65 70 75 80

Glu Leu Leu Arg Asp Ser Asp 11e Glu Glu Tyr Leu Ser Leu Ala Tyr 85 90 95

Lys Glu Ser Asn Thr Val Val Leu Gln Glu Pro Val Gln Glu Gln Pro
100 105 110

Gly Thr Leu Thr Ile Thr Val Leu Arg Pro Phe His Glu Ala Ser Pro 115 120 125

Trp Gln Val Lys Lys Glu Asp Thr 11e Val Pro Pro Asn Leu Arg Ser 130 135 140

Arg Ser Trp Glu Thr Phe Pro Ser Val Glu Lys Lys Thr Pro Gly Pro
145 150 155 160

Pro Phe Gly Thr Gln Ile Trp Lys Gly Leu Cys Ile Glu Ser Lys Gln 165 170 175

Leu Val Ser Ala Pro Gly Ala IIe Leu Lys Ser Pro Ser Val Leu Gln 180 185 190

Met	Arg	Gln	Phe	lle	Gln	His	Glu	Val	He	Lys	Asn	Glu	Val	Lys	Leu
		195					200					205			
Arg	Leu	G1n	Val	Ser	Leu	Lys	Asp	Tyr	He	Asn	Tyr	11e	Leu	Lys	Lys
	210					215					220				
Glu	Asp	Glu	Leu	Gln	Glu	Met	Met	Val	Lys	Asp	Ser	Arg	Thr	Glu	G] u
225					230					235					240
Glu	Arg	G]y	Asn	Ala	Ala	Asp	Leu	Leu	Lys	Leu	Val	Met	Ser	Phe	Pro
				245					250					255	
Lys	Met	Glu	Glu	Thr	Thr	Lys	Ser	His	Val	Thr	Glu	Val	Ala	Ala	His
			260					265					270		
Leu	Thr	Asp	Leu	Phe	Lys	Gln	Ser	Leu	Ala	Thr	Pro	Pro	Lys	Cys	Pro
		275					280					285			
Pro		Thr	Phe	Gly	Lys		Phe	Phe	G]u	Lys	Thr	Trp	Arg	His	Thr
	290					295	·				300				
	Ser	Ser	Lys	Arg		Lys	Glu	Lys	He		Lys	Thr	Arg	Lys	
305	C1	TI.	TI	61	310	T.	,			315	,				320
11e	GIU	ınr	Inr		Asn	lyr	Leu	Met		11e	Lys	Asn	Arg		He
Dno	Dno	Dho	Dha	325	Com	C1	1	Λ	330	1	Т	C1.	C .	335	т
110	110	гие	340	Lys	ser	Gru	Leu	345	GIN	Leu	Tyr	GIN	5er 350	GIN	iyr
Asn	Hic	Lou		Sor	Lou	Sor	Lys		Lou	Pro	Sor	Dho		Luc	Lvo
пзп	1113	355	пэр	261	Leu	261	360	Lys	Leu	110	261	365	1111	Lys	Lys
Asn	Glu		Ala	Asn	Glu	Thr	Ala	Val	Gln	Asn	Thr		Asn	Leu	Asn
	370			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	010	375	.,, .	, (,1	0,111	тор	380	501	пор	,,cu	ASH
Leu		Phe	Lvs	Pro	His		Val	Ser	Glu	Gln		Ser	Ser	Ser	Val
385					390	·				395	•				400
Pro	Ser	Leu	Pro	Lys	Pro	Glu	He	Ser	Ala	Asp	Lys	Lys	Asp	Phe	
				405					410					415	
Ala	Gln	Asn	Gln	Thr	Glu	Asn	Leu	Thr	Lys	Ser	Pro	Glu	Glu	Ala	Glu
			420					425					430		
Ser	Tyr	Glu	Pro	Val	Lys	Пе	Pro	Thr	Gln	Ser	Leu	Leu	G]n	Asp	Val
		435					440					445			
Ala	Gly	Gln	Thr	Arg	Lys	Glu	Lys	Val	Lys	Leu	Pro	His	Tyr	Leu	Leu
	450					455					460				
Ser	Ser	Lys	Pro	Lys	Ser	Gln	Pro	Leu	Ala	Lys	Val	Gln	Asp	Ser	Val
465					470					475					480

Gly Gly Lys Val Asn Thr Ser Ser Val Ala Ser Ala Ala Ile Asn Asn 490 485 Ala Lys Ser Ser Leu Phe Gly Phe His Pro Leu Pro Ser Ser Val Lys 505 510 Phe Gly Val Leu Lys Glu Gly His Thr Tyr Ala Thr Val Val Lys Leu 520 525 Lys Asn Val Gly Val Asp Phe Cys Arg Phe Lys Val Lys Gln Pro Pro 535 Pro Ser Thr Gly Leu Lys Val Thr Tyr Lys Pro Gly Pro Val Ala Ala 545 550 555 560 Gly Met Gln Thr Glu Leu Asn Ile Glu Leu Phe Ala Thr Ala Val Gly 565 570 Glu Asp Gly Ala Lys Gly Ser Ala His 11e Ser His Asn 11e Glu 11e 580 585 590 Met Thr Glu His Glu Val Leu Phe Leu Pro Val Glu Ala Asn Ile Leu 595 600 605

<210> 4219

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4219

 Met
 Ser
 Cys
 Trp
 Val
 His
 Leu
 Pro
 Asp
 Gly
 Val
 Val
 Ala
 Gly
 Gln
 Arg

 I
 5
 10
 15
 15

 Gly
 Phe
 Ser
 Leu
 Pro
 Ser
 Arg
 Gly
 Arg
 Ala
 Glu
 Ala
 Pro
 Leu
 Thr

 Ser
 Arg
 Thr
 Arg
 Arg
 Leu
 Ala
 Gly
 Arg
 Gly
 Ala
 Asp
 Pro
 Pro
 Pro
 Pro

 Pro
 Ser
 Arg
 Met
 Gly
 Arg
 Leu
 Ala
 Gly
 Arg
 Gly
 Ala
 Asp
 Pro
 Pro
 Pro

Pro Ser Arg Met Gly Arg Leu Ala Gly Arg Gly Ala Asp Pro Pro 50 55 60

Pro Pro Ser Arg Thr Gly Arg Leu Ala Trp Arg Gly Leu Thr Pro Thr 65 70 75 80

Ser Leu Leu Asp Gly Val Ala Ala Gly Arg Arg Arg Ser Ser Pro Pro

Arg	Arg	Gly	Gly	Cys	Arg	Ala	Asp	Arg	Leu	Leu	Thr	Ser	Gln	Thr	Gly
			100					105					110		
Arg	Leu	Pro	G] y	Gly	Gly	Ala	Pro	His	Phe	Leu	Asp	Gly	Ala	Val	Ala
		115					120					125			
Arg	Arg	Arg	Val	Ser	Ser	Leu	Leu	Arg	Trp	Gly	Gly	Arg	Ala	Glu	Thr
	130					135					140				
Leu	Leu	Thr	Ser	Gln	Thr	Gly	Ser	Arg	Pro	Gly	Arg	Gly	Ala	Pro	His
145					150					155					160
He	Pro	Asp	Gly	Ala	Ala	Gly	Gln	Arg	Arg	Ser	Pro	His	Leu	Arg	Arg
				165					170					175	
Trp	Ala	Ala	Gly	Gln	Arg	Arg	Ser	Ser	Leu	Pro	Arg	Trp	Asp	G1y	Gly
			180					185					190		
Gly	Ala	Glu	Thr	Leu	Leu	Thr	Phe	Gln	Thr	Gly	Gln	Pro	Gly	Arg	Gly
		195					200					205			
Ala	Pro	His	Val	Pro	Asp	Asp	Gly	Arg	Pro	Gly	Arg	Asp	Ala	Pro	His
	210					215					220				
Phe	Pro	Asp	Gly	Val	Ala	Ala	Gly	Gln	Arg	Leu	Gln	Ser	Arg	His	Ph€
225					230					235					240
G1 y	Arg	Pro	Arg	Gln	Ala	Gly	Gly	Arg	Trp	Arg	Leu				
				245					250						

<211> 101

<212> PRT

<213> Homo sapiens

<400> 4220

Gly Gln Pro Tyr Gln Ala Gln Pro Pro Ser Pro Ala Ala Val Gly His Arg 11e Leu Ser Lys Trp Val Gln Met Glu 11e Pro Val Gln Trp Leu Tyr Ser Asp Val Asp <210> 4221 <211> 343 <212> PRT <213> Homo sapiens <400> 4221 Met Ile Gln Glu Pro Ala Leu Pro Pro Gly Trp Glu Met Lys Tyr Thr Ser Glu Gly Val Arg Tyr Phe Val Asp His Asn Thr Arg Thr Thr Phe Lys Asp Pro Arg Pro Gly Phe Glu Ser Gly Thr Lys Gln Gly Ser Pro Gly Ala Tyr Asp Arg Ser Phe Arg Trp Lys Tyr His Gln Phe Arg Phe Leu Cys His Ser Asn Ala Leu Pro Ser His Val Lys Ile Ser Val Ser Arg Gln Thr Leu Phe Glu Asp Ser Phe Gln Gln lle Met Asn Met Lys Pro Tyr Asp Leu Arg Arg Arg Leu Phe lle lle Met Arg Gly Glu Glu Gly Leu Asp Tyr Gly Gly 11e Ala Arg Glu Trp Phe Phe Leu Leu Ser His Glu Val Leu Asn Pro Met Tyr Cys Leu Phe Glu Tyr Ala Gly Lys Asn Asn Tyr Cys Leu Gln Ile Asn Pro Ala Ser Ser Ile Asn Pro

Asp His Leu Thr Tyr Phe Arg Phe Ile Gly Arg Phe Ile Ala Met Ala

				165					170					175	
Leu	Tyr	His	Gly	Lys	Phe	He	Asp	Thr	Gly	Phe	Thr	Leu	Pro	Phe	Tyr
			180					185					190		
Lys	Arg	Met	Leu	Asn	Lys	Arg	Pro	Thr	Leu	Lys	Asp	Leu	Glu	Ser	He
		195					200					205			
Asp	Pro	G] u	Phe	Tyr	Asn	Ser	He	Val	Trp	He	Lys	Glu	Asn	Asn	Leu
	210					215					220				
Glu	Glu	Cys	Gly	Leu	Glu	Leu	Tyr	Phe	He	Gln	Asp	Met	Glu	11e	Leu
225					230					235					240
Gly	Lys	Val	Thr	Thr	His	Glu	Leu	Lys	Glu	Gly	Gly	Glu	Ser	He	Arg
				245					250					255	
Val	Thr	Glu	Glu	Asn	Lys	Glu	Glu	Tyr	lle	Met	Leu	Leu	Thr	Asp	Trp
			260					265					270		
Arg	Phe	Thr	Arg	Gly	Val	Glu	Glu	Gln	Thr	Lys	Ala	Phe	Leu	Asp	Gly
		275					280					285			
Phe	Asn	Glu	Val	Ala	Pro	Leu	Glu	Trp	Leu	Arg	Tyr	Phe	Asp	Glu	Lys
	290					295					300				
Glu	Leu	Glu	Leu	Met	Leu	Cys	Gly	Met	Gln	Glu	Ile	Asp	Arg	Ala	Thr
305					310					315					320
G1y	Arg	Arg	Ala	Pro	Ser	Thr	Gly	Thr	Thr	Pro	Arg	Thr	Ala	Ser	Arg
				325					330					335	
Ser	Ser	Gly	Ser	Gly	Arg	Trp									
			340												

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4222

Ser Val Tyr Asp His Gln Gly Ile Phe Lys Arg Asn Asn Ser Arg Leu Met Asp Glu Ile Leu Lys Gln Gln Gln Glu Leu Leu Gly Leu Asp Cys Ser Lys Tyr Ser Pro Glu Phe Ala Asn Ser Asn Asp Lys Asp Asp Gln Val Leu Asn Cys His Leu Ala Val Lys Val Leu Ser Pro Glu Asp Gly Lys Ala Asp Ile Val Arg Ala Ala Gln Asp Phe Cys Gln Leu Val Ala Gln Lys Gln Lys Arg Pro Thr Asp Leu Asp Val Asp Thr Leu Ala Ser Leu Leu Ser Ser Asn Gly Cys Pro Asp Pro Asp Leu Val Leu Lys Phe Gly Pro Val Asp Ser Thr Leu Gly Phe Leu Pro Trp His Ile Arg Leu Thr Glu Ile Val Ser Leu Pro Ser His Leu Asn Ile Ser Tyr Glu Asp Phe Phe Ser Ala Leu Arg Gln Tyr Ala Ala Cys Glu Gln Arg Leu Gly Lys

<210> 4223

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4223

Met Gly Val Gly Asn Ile Ala Gly Ser Glu Ser Ser Glu Val Gly Met Glu Val Ser Gln Leu Arg Leu Gly Pro Phe Cys Arg Ala Leu Ser Val

Tyr Ser Trp Phe Ser Ile Arg Gly Gln Pro Ala Gly Gly Leu Glu Asn

Arg Ser Leu Gly Thr Lys Gln Gly Leu Cys Pro Gly Ala Cys Tyr Val Ala Gln Pro Thr Arg Leu Ser Pro Arg Gln Ser Cys Pro Lys Pro Arg Lys Leu Met Tyr His Pro Arg Gly Arg Glu Pro Thr Phe Pro Ser Lys Glu Val Phe Tyr Leu Trp <210> 4224 <211> 885 <212> PRT <213> Homo sapiens <400> 4224 Met Gln Glu Ala Ile Ile Leu Leu Ala Leu Leu Gly Ala Met Ser Gly Gly Glu Ala Leu His Leu Ile Leu Leu Pro Ala Thr Gly Asn Val Ala Glu Asn Ser Pro Pro Gly Thr Ser Val His Lys Phe Ser Val Lys Leu Ser Ala Ser Leu Ser Pro Val Ile Pro Gly Phe Pro Gln Ile Val Asn Ser Asn Pro Leu Thr Glu Ala Phe Arg Val Asn Trp Leu Ser Gly Thr Tyr Phe Glu Val Val Thr Thr Gly Met Glu Gln Leu Asp Phe Glu Thr Gly Pro Asn Ile Phe Asp Leu Gln Ile Tyr Val Lys Asp Glu Val Gly Val Thr Asp Leu Gln Val Leu Thr Val Gln Val Thr Asp Val Asn Glu Pro Pro Gln Phe Gln Gly Asn Leu Ala Glu Gly Leu His Leu Tyr Ile

Val Glu Arg Ala Asn Pro Gly Phe Ile Tyr Gln Val Glu Ala Phe Asp

145					150					155					160
Pro	Glu	Asp	Thr	Ser	Arg	Asn	He	Pro	Leu	Ser	Tyr	Phe	Leu	Ile	Ser
				165					170					175	
Pro	Pro	Lys	Ser	Phe	Arg	Met	Ser	Ala	Asn	Gly	Thr	Leu	Phe	Ser	Thr
			180					185					190		
Thr	Glu	Leu	Asp	Phe	Glu	Ala	Gly	His	Arg	Ser	Phe	His	Leu	lle	Va]
		195					200					205			
Glu	Val	Arg	Asp	Ser	Gly	Gly	Leu	Lys	Ala	Ser	Thr	Glu	Leu	Gln	Val
	210					215					220				
Asn	He	Val	Asn	Leu	Asn	Asp	Glu	Val	Pro	Arg	Phe	Thr	Ser	Pro	Thr
225					230					235					240
Arg	Val	Tyr	Thr	Val	Leu	Glu	Glu	Leu	Ser	Pro	G1 y	Thr	lle	Val	Ala
				245					250					255	
Asn	He	Thr	Ala	Glu	Asp	Pro	Asp	Asp	G] u	Gly	Phe	Pro	Ser	His	Leu
			260					265					270		
Leu	Tyr	Ser	lle	Thr	Thr	Val	Ser	Lys	Tyr	Phe	Met	He	Asn	Gln	Leu
		275					280					285			
Thr	Gly	Thr	He	Gln	Val	Ala	Gln	Arg	He	Asp	Arg	Asp	Ala	Gly	Glu
	290					295					300				
Leu	Arg	Gln	Asn	Pro	Thr	He	Ser	Leu	Glu	Val	Leu	Val	Lys	Asp	Arg
305					310					315					320
Pro	Tyr	Gly	Gly	Gln	Glu	Asn	Arg	He	Gln	He	Thr	Phe	He	Val	Glu
				325					330					335	
Asp	Val	Asn	Asp	Asn	Pro	Ala	Thr	Cys	Gln	Lys	Phe	Thr	Phe	Ser	He
			340					. 345					350		
Met	Val	Pro	Glu	Arg	Thr	Ala		Gly	Thr	Leu	Leu	Leu	Asp	Leu	Asn
		355					360					365			
Lys		Cys	Phe	Asp	Asp		Ser	Glu	Ala	Pro		Asn	Arg	Phe	Asn
	370		_			375					380				
	Thr	Met	Pro	Ser		Val	Gly	Ser	Gly		Arg	Phe	Leu	Gln	-
385					390					395					400
Pro	Ala	Gly	Ser		Lys	He	Val	Leu		Gly	Asp	Leu	Asp		G1 u
	D	C		405			0.1		410	ar.	T)	., .		415	0.
Asn	Pro	Ser		Leu	Ala	Ala	Gly		Lys	Tyr	Thr	Val		He	GIn
17 - 1	C1.	Aen	420	A 7	D.	D.	т	425	,			17 3	430 T	17 1	т
V 54 1	uin	acn	V 54 1	A 1 2	rro	rro	1 177	1 1/ 1/2	IVC	acn	A Cr	1/ O I	1 177	Val	1 17 10

		435					440					445			
He	Leu	Thr	Ser	P.ro	Glu	Asn	Glu	Phe	Pro	Leu	lle	Phe	Asp	Arg	Pro
	450					455					460				
Ser	Tyr	Val	Phe	Asp	Val	Ser	Glu	Arg	Arg	Pro	Ala	Arg	Thr	Arg	Va]
465					470					475					480
Gly	Gln	Val	Arg	Ala	Thr	Asp	Lys	Asp	Leu	Pro	Gln	Ser	Ser	Leu	Leu
				485					490					495	
Tyr	Ser	lle	Ser	Thr	Gly	Gly	Ala	Ser	Leu	Gln	Tyr	Pro	Asn	Val	Phe
			500					505					510		
Trp	Ile	Asn	Pro	Lys	Thr	Gly	Glu	Leu	Gln	Leu	Val	Thr	Lys	Val	Asp
		515					520					525			
Cys	Glu	Thr	Thr	Pro	He	Tyr	He	Leu	Arg	He	Gln	Ala	Thr	Asn	Asn
	530					535					540				
Glu	Asp	Thr	Ser	Ser	Val	Thr	Val	Thr	Val	Asn	lle	Leu	Glu	Glu	Asn
545					550					555					560
Asp	Glu	Lys	Pro	He	Cys	Thr	Pro	Asn	Ser	Tyr	Phe	Leu	Ala	Leu	Pro
				565					570					575	
Val	Asp	Leu	Lys	Val	Gly	Thr	Asn	lle	Gln	Asn	Phe	Lys	Leu	Thr	Cys
			580					585					590		
Thr	Asp		Asp	Ser	Ser	Pro		Ser	Phe	Arg	Tyr		He	G1 y	Pro
		595					600					605			
Gly		Val	Asn	Asn	His	Phe	Thr	Phe	Ser	Pro		Ala	Gly	Ser	Asn
., 1	610		,			615			151		620				
	Ihr	Arg	Leu	Leu		Thr	Ser	Arg	Phe	-	Tyr	Ala	Gly	G1 y	
625	,	7.1	т	A	630 T			,	W 1	635	17 1	TI			640
Asp	LŅS	116	rp		lyr	Lys	Leu	Leu		lyr	val	Inr	Asp		Asn
Lau	Mot	Con	Aan	645	1	1	11 a	Clas	650	1	V 1	C1	Tl	655	Tl
Leu	Mer	261	660	MIG	Lys	Lys	АТа	665	мта	Leu	vai	GIU		GIY	inr
Val	Thr	Lou		Ho	Lve	Val	110		Hic	Duo	Thr	The	670	110	The
1 4 1	1111	675	Sei	110	Lys	vai	680	110	111.5	110	1111	685	116	116	1111
Thr	Thr		Ara	Pro	Arg	Val		Tvr	Gln	Val	Leu		Lve	Acn	Val
	690	110	ni s	110	mg	695	1111	1 ; 1	0111	101	700	nı g	Lyo	лэп	1 41
Tvr		Pro	Ser	Ala	Trn	Tyr	Val	Pro	Phe	Val		Thr	Leu	GLv	Ser
705			~		710	• ; •				715			200	0 2 3	720
	l.eu	Leu	Leu	Glv		Leu	Val	Tvr	Leu		Val	Leu	Leu	Ala	

	725		730		735
Ala lle His Arg	His Cys	Pro Cys L	ys Thr Gly	Lys Asn Lys	Glu Pro
740		7	745	750	
Leu Thr Lys Lys	Gly Glu	Thr Lys T	Thr Ala Glu	Arg Asp Val	Val Val
755		760		765	
Glu Thr Ile Gln	Met Asn	Thr Ile P	Phe Asp Gly	Glu Ala Ile	Asp Pro
770		775		780	
Val Thr Gly Glu	Thr Tyr	Glu Phe A	Asn Ser Lys	Thr Gly Ala	Arg Lys
785	790		795		800
Trp Lys Asp Pro	Leu Thr	Gln Met P	Pro Lys Trp	Lys Glu Ser	Ser His
	805		810		815
Gln Gly Ala Ala	Pro Arg	Arg Val T	Thr Ala Gly	Glu Gly Met	Gly Ser
820		8	325	830	
Leu Arg Ser Ala	Asn Trp	Glu Glu A	Asp Glu Leu	Ser Gly Lys	Ala Trp
835		840		845	
Ala Glu Asp Ala	Gly Leu	Gly Ser A	Arg Asn Glu	Gly Gly Lys	Leu Gly
850		855		860	
Asn Pro Lys Asn	Arg Asn	Pro Ala P	Phe Met Asn	Arg Ala Tyr	Pro Lys
865	870		875		880
Pro His Pro Gly	Lys				
	885				
<210> 4225					
<211> 106					
<212> PRT					
<213> Homo sapi	ens				
<400> 4225					
Met Asp Asn Pro	Leu Leu	Lys Tyr S	Ser Ala Lys	Asp Tyr Phe	Phe Lys
1	5		10		15
Ala Ala Leu Cys	His Phe	lle Val A	sp Glu Leu	Asn Val Lys	Leu Ala

Leu Glu Lys Tyr Glu Glu Met Phe Pro Ala Phe Thr Asp Ser Arg Glu

Cys Lys Leu Leu Lys Lys Leu Leu Glu Ala His Glu Glu Gln Asn Ser

Glu Ala Tyr Thr Glu Ala Val Lys Glu Phe Asp Ser lle Ser Arg Leu Asp Gln Trp Leu Thr Thr Met Leu Leu Arg Ile Lys Lys Ser Ile Gln Gly Asp Gly Glu Gly Asp Gly Asp Leu Lys <210> 4226 <211> 403 <212> PRT <213> Homo sapiens <400> 4226 Met Asn Asn Asn Met Ser Leu Gln Asp Ala Glu Trp Tyr Trp Gly Asp lle Ser Arg Glu Glu Val Asn Glu Lys Leu Arg Asp Thr Ala Asp Gly Thr Phe Leu Val Arg Asp Ala Ser Thr Lys Met His Gly Asp Tyr Thr

Leu Thr Leu Arg Lys Gly Gly Asn Asn Lys Leu Ile Lys Ile Phe His Arg Asp Gly Lys Tyr Gly Phe Ser Asp Pro Leu Thr Phe Ser Ser Val Val Glu Leu 11e Asn His Tyr Arg Asn Glu Ser Leu Ala Gln Tyr Asn Pro Lys Leu Asp Val Lys Leu Leu Tyr Pro Val Ser Lys Tyr Gln Gln Asp Gln Val Val Lys Glu Asp Asn 11e Glu Ala Val Gly Lys Lys Leu His Glu Tyr Asn Thr Gln Phe Gln Glu Lys Ser Arg Glu Tyr Asp Arg Leu Tyr Glu Glu Tyr Thr Arg Thr Ser Gln Glu He Gln Met Lys Arg Thr Ala lle Glu Ala Phe Asn Glu Thr Ile Lys lle Phe Glu Glu Gln

				165					170					175	
Cys	Gln	Thr	Gln	Glu	Arg	Tyr	Ser	Lys	Glu	Tyr	lle	Glu	Lys	Phe	Lys
			180					185					190		
Arg	Glu	Gly	Asn	Glu	Lys	Glu	He	Gln	Arg	lle	Met	His	Asn	Tyr	Asp
		195					200					205			
Lys	Leu	Lys	Ser	Arg	He	Ser	Glu	11e	11e	Asp	Ser	Arg	Arg	Arg	Leu
	210					215					220				
Glu	Glu	Asp	Leu	Lys	Lys	Gln	Ala	Ala	Glu	Tyr	Arg	Glu	lle	Asp	Lys
225					230					235					240
Arg	Met	Asn	Ser	lle	Lys	Pro	Asp	Leu	Πe	Gln	Leu	Arg	Lys	Thr	Arg
				245					250					255	
Asp	Gln	Tyr	Leu	Met	Trp	Leu	Thr	Gln	Lys	Gly	Val	Arg	Gln	Lys	Lys
			260					265					270		
Leu	Asn	Glu	Trp	Leu	Gly	Asn	Glu	Asn	Thr	Glu	Asp	Gln	Tyr	Ser	Leu
		275					280					285			
Val	Glu	Asp	Asp	Glu	Asp	Leu	Pro	His	His	Asp	Glu	Lys	Thr	Trp	Asn
	290					295					300				
Val	Gly	Ser	Ser	Asn	Arg	Asn	Lys	Ala	Glu	Asn	Leu	Leu	Arg	Gly	Lys
305					310					315					320
Arg	Asp	Gly	Thr	Phe	Leu	Val	Arg	Glu	Ser	Ser	Lys	Gln	Gly	Cys	Tyr
				325					330					335	
Ala	Cys	Ser	Val	Val	Val	Asp	Gl y	Glu	Val	Lys	His	Cys	Val	He	Asn
			340					345					350		
Lys	Thr	Ala	Thr	Gly	Tyr	Gly	Phe	Ala	Glu	Pro	Tyr	Asn	Leu	Tyr	Ser
		355					360					365			
Ser	Leu	Lys	Glu	Leu	Val	Leu	His	Tyr	Gln	His	Thr	Ser	Leu	Val	Gln
	370					375					380				
His	Asn	Asp	Ser	Leu	Asn	Val	Thr	Leu	Ala	Tyr	Pro	Val	Tyr	Ala	Gln
385					390					395					400
Gln	Arg	Arg													

<210> 4227 <211> 369

<212> PRT <213> Homo sapiens <400> 4227 Met Leu Trp Glu Glu Thr Gly Ala Ala Pro Ala Pro Ala Arg Ala Ser Asp Leu Pro Tyr Arg 11e Ser Ser Asp His Leu Lys Lys Glu Glu Lys 25 Met Thr Met Met Ala His Gln Tyr Pro Ser Trp 11e Phe 11e Asn Glu 35 40 Lys Thr Phe 11e Thr Arg Glu Gln Leu Asn Ser Leu Leu Lys Thr Tyr 55 Asn lle Phe Tyr Glu Asn Gln Lys Asn Leu His lle Leu Tyr Gly Glu 70 75 Thr Glu Asp Gly Lys Leu lle Val Glu Gly Met Leu Asp lle Phe Trp 85 90 Gly Val Lys Arg Pro Ile Gln Leu Lys Ile Gln Asp Glu Lys Pro Phe 105 Ser Ser Phe Thr Ser Met Lys Ser Ser Asp Val Phe Ser Ser Lys Gly 115 120 125 Met Thr Arg Trp Gly Glu Phe Asp Asp Leu Tyr Arg Ile Ser Glu Leu 135 140 Asp Arg Thr Gln Ile Pro Met Ser Glu Lys Arg Asn Ser Gln Glu Asp 150 155 Tyr Leu Ser Tyr His Ser Asn Thr Leu Lys Pro His Ala Lys Asp Glu 165 170 175 Pro Asp Ser Pro Val Leu Tyr Arg Thr Met Ser Glu Ala Ala Leu Val 180 185 190 Arg Lys Arg Met Lys Pro Leu Met Met Asp Arg Lys Glu Arg Gln Lys 195 200 205

210 215 220

Phe 11e Pro Ala Phe Glu Ser Glu Thr Lys Val Arg Val Asn Ser Asn 225 230 230

Met Arg Thr Glu Glu Val 11e Lys Gln Leu Leu Gln Lys Phe Lys 11e

Asn Arg Ala Ser lle Asn Gly His Phe Tyr Asn His Glu Thr Ser lle

				245					250					255	
				240					200					200	
Glu	Asn	Ser	Pro	Gln	Asp	Phe	Ala	Leu	His	He	He	Phe	Ala	Thr	Gly
			260					265					270		
Glu	Gln	Arg	Arg	Leu	Lys	Lys	Thr	Asp	He	Pro	Leu	Leu	Gln	Arg	Leu
		275					280					285			
Leu	Gln	Gly	Pro	Ser	Glu	Lys	Asn	Ala	Arg	lle	Phe	Leu	Met	Asp	Lys
	290					295					300				
Asp	Ala	Glu	Glu	lle	Ser	Ser	Asp	Val	Ala	Gln	Tyr	He	Asn	Phe	His
305					310					315					320
Phe	Ser	Leu	Leu	Glu	Ser	11e	Leu	Gln	Arg	Leu	Asn	Glu	Glu	Glu	Lys
				325					330					335	
Arg	GJu	He	Gln	Arg	He	Val	Thr	Lys	Phe	Asn	Lys	Glu	Lys	Ala	Πle
			340					345					350		
11e	Leu	Lys	Cys	Leu	Gln	Asn	Lys	Leu	Val	11e	Lys	Thr	Glu	Thr	Thr
		355					360					365			
Val															

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4228

Met Ala Trp Asp Ala Gly Ala Trp Val Glu Arg Arg Gly Pro Gln Ala
1 5 10 15

Ala Ala Val Leu Pro lle Gly His Thr Val Gl
n Gly Ala Ser Lys Ala $20 \hspace{1.5cm} 25 \hspace{1.5cm} 30$

Thr Lys His Thr Pro Gln Pro Ser Gly Cys Leu Trp Leu Thr Thr Cys
35 40 45

Leu Glu Thr Phe Thr Leu Gly His Met Ile Phe Leu Pro Thr His Pro
50 55 60

Leu Pro Pro Pro Ser Gly Arg Cys Gln Gln Arg Ala Pro Trp Glu Pro 65 70 75 80

Gly Leu Leu Val Glu Ala Trp Leu Glu Gly Arg Val Ser Leu Glu Trp

Thr Asp Ala Leu Pro Pro Leu Gln Ser Leu Thr Ala Ala Ala Pro Ser Gln Met Gln Asn <210> 4229 <211> 325 <212> PRT <213> Homo sapiens <400> 4229 Met Leu Cys Pro Trp Arg Thr Ala Asn Leu Gly Leu Leu Leu Ile Leu Thr 11e Phe Leu Val Ala Ala Ser Ser Ser Leu Cys Met Asp Glu Lys Gln Ile Thr Gln Asn Tyr Ser Lys Val Leu Ala Glu Val Asn Thr Ser Trp Pro Val Lys Met Ala Thr Asn Ala Val Leu Cys Cys Pro Pro Ile Ala Leu Arg Asn Leu lle lle lle Thr Trp Glu lle lle Leu Arg Gly Gln Pro Ser Cys Thr Lys Ala Tyr Arg Lys Glu Thr Asn Glu Thr Lys Glu Thr Asn Cys Thr Asp Glu Arg Ile Thr Trp Val Ser Arg Pro Asp Gln Asn Ser Asp Leu Gln lle Arg Pro Val Ala lle Thr His Asp Gly Tyr Tyr Arg Cys Ile Met Val Thr Pro Asp Gly Asn Phe His Arg Gly Tyr His Leu Gln Val Leu Val Thr Pro Glu Val Thr Leu Phe Gln Asn Arg Asn Arg Thr Ala Val Cys Lys Ala Val Ala Gly Lys Pro Ala Ala

Gln lle Ser Trp lle Pro Glu Gly Asp Cys Ala Thr Lys Gln Glu Tyr

Trp Ser Asn Gly Thr Val Thr Val Lys Ser Thr Cys His Trp Glu Val His Asn Val Ser Thr Val Thr Cys His Val Ser His Leu Thr Gly Asn Lys Ser Leu Tyr lle Glu Leu Leu Pro Val Pro Gly Ala Lys Lys Ser Ala Lys Leu Tyr lle Pro Tyr lle lle Leu Thr lle lle lle Leu Thr Ile Val Gly Phe lle Trp Leu Leu Lys Val Asn Gly Cys Arg Lys Tyr Lys Leu Asn Lys Thr Glu Ser Thr Pro Val Val Glu Glu Asp Glu Met Gln Pro Tyr Ala Ser Tyr Thr Glu Lys Asn Asn Pro Leu Tyr Asp Thr Thr Asn Lys Val Lys Ala Ser Gln Ala Leu Gln Ser Glu Val Asp Thr Asp Leu His Thr Leu <210> 4230 <211> 115 <212> PRT <213> Homo sapiens <400> 4230 Met His Ser Thr Gln Asp Lys Ser Leu His Leu Glu Gly Asp Pro Asn Pro Ser Ala Ala Pro Thr Ser Thr Cys Ala Pro Arg Lys Met Pro Lys Arg Ile Ser lle Ser Lys Gln Leu Ala Ser Val Lys Ala Leu Arg Lys

Cys Ser Asp Leu Glu Lys Ala Ile Ala Thr Thr Ala Leu Ile Phe Arg

Asn Ser Ser Asp Ser Asp Gly Lys Leu Glu Lys Ala lle Ala Lys Asp Leu Leu Gln Thr Gln Phe Arg Asn Phe Ala Glu Pro Cys Glu Asp Ser Arg Arg Ser Trp Pro Ser Ala Lys Leu Glu Glu Ser Thr Leu Ser Arg His Trp lle <210> 4231 <211> 155 <212> PRT <213> Homo sapiens <400> 4231 Met Ala Ala Leu Ile Cys Pro Ala Ser Pro Gln His Phe Pro Phe Leu His Ser Phe Trp Asp Pro Thr Trp Leu Leu Ser His Leu Ala Thr Ser Gln Thr His Leu Pro Met Gly Thr Ser Arg Ser Ala Pro Gly Pro Val Leu Ser Ser Ser Leu His Ser Pro Arg Cys Leu Leu Leu Leu Val Phe Asn Thr Thr Tyr Gly His Arg Ala Ile Gly Trp His Thr Ser Ala Phe Ser Pro Asp Cys Ser Leu Glu Leu Arg Ile Leu Phe Ser Asn Ala Phe Leu Thr Leu Ala His Arg Gln Leu lle Arg Leu Leu Lys Leu Asp lle Val Lys Thr Leu Ser Cys Ser Pro Phe Gln Ala Phe Leu Ser Leu Pro Pro Ile Asn Ser Thr Ser Val Leu Ala Ala Asp Pro Ala Lys Asp Leu Gly Val Ser Leu Phe Pro Pro Phe Pro Arg Ser

145 150 155

<210> 4232

<211> 490

<212> PRT

<213> Homo sapiens

<400> 4232

Met Asp Leu Met Cys Lys Lys Met Lys His Leu Trp Phe Phe Leu Leu 5 10 Leu Val Ala Ala Pro Gly Trp Val Leu Ser Gln Leu Gln Leu Gln Glu 25 Ser Gly Pro Gly Leu Val Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys 35 40 45 Ser Val Ser Gly Ala Ser Met Thr Thr Ser Glu Tyr Tyr Trp Ala Trp 55 Ile Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly Asn Ile Phe 70 75 Tyr Thr Gly Arg Thr Phe Tyr Asn Pro Ser Leu Lys Ser Arg Leu Ser 90 Leu Ser Ile Asp Thr Ala Thr Ser Gln Phe Ser Leu Ser Leu Arg Ser 100 105 Val Thr Ala Ala Asp Thr Ala Ile Tyr Phe Cys Ala Arg His Leu Asn 115 120 125 Thr Val Thr Ile Tyr Arg Gln Pro Phe Asp His Trp Gly Gln Gly Ala 135 140 Leu Val Thr Val Ser Ser Ala Ser Pro Thr Ser Pro Lys Val Phe Pro 150 155 Leu Ser Leu Asp Ser Thr Pro Gln Asp Gly Asn Val Val Val Ala Cys 165 170 Leu Val Gln Gly Phe Phe Pro Gln Glu Pro Leu Ser Val Thr Trp Ser 185 Glu Ser Gly Gln Asn Val Thr Ala Arg Asn Phe Pro Pro Ser Gln Asp 195 200 205

Ala Ser Gly Asp Leu Tyr Thr Thr Ser Ser Gln Leu Thr Leu Pro Ala

	210					215					220				
Thr	Gln	Cys	Pro	Asp	Gly	Lys	Ser	Val	Thr	Cys	His	Val	Lys	His	Tyr
225					230					235					240
Thr	Asn	Pro	Ser	G]n	Asp	Val	Thr	Val	Pro	Cys	Pro	Val	Pro	Pro	Pro
				245					250					255	
Pro	Pro	Cys	Cys	His	Pro	Arg	Leu	Ser	Leu	His	Arg	Pro	Ala	Leu	Glu
			260					265					270		
Asp	Leu	Leu	Leu	Gly	Ser	Glu	Ala	Asn	Leu	Thr	Cys	Thr	Leu	Thr	Gly
		275					280					285			
Leu	Arg	Asp	Ala	Ser	G1y	Ala	Thr	Phe	Thr	Trp	Thr	Pro	Ser	Ser	Gly
	290					295					300				
Lys	Ser	Ala	Val	Gln	Gly	Pro	Pro	Glu	Arg	Asp	Leu	Cys	Gly	Cys	Tyr
305					310					315					320
Ser	Val	Ser	Ser	Val	Leu	Pro	Gly	Cys	Ala	Gln	Pro	Trp	Asn	His	Gly
				325					330					335	
Glu	Thr	Phe	Thr	Cys	Thr	Ala	Ala	His	Pro	Glu	Leu	Lys	Thr	Pro	Leu
			340					345					350		
Thr	Ala	Asn	lle	Thr	Lys	Ser	Gly	Asn	Thr	Phe	Arg	Pro	Glu	Val	His
		355					360					365			
Leu	Leu	Pro	Pro	Pro	Ser	Glu	Glu	Leu	Ala	Leu	Asn	Glu	Leu	Val	Thr
	370					375					380				
Leu	Thr	Cys	Leu	Ala	Arg	Gly	Phe	Ser	Pro	Lys	Asp	Val	Leu	Val	Arg
385					390					395					400
Trp	Leu	Gln	Gly	Ser	Gln	Glu	Leu	Pro	Arg	Glu	Lys	Tyr	Leu	Thr	Trp
				405					410					415	
Ala	Ser	Arg	Gln	Glu	Pro	Ser	Gln	Gly	Thr	Thr	Thr	Phe	Ala	Val	Thr
			420					425					430		
Ser	He	Leu	Arg	Val	Ala	Ala	Glu	Asp	Trp	Lys	Lys	Gly	Asp	Thr	Phe
		435					440					445			
Ser	Cys	Met	Val	Gly	His	G] u	Ala	Leu	Pro	Leu	Ala	Phe	Thr	Gln	Lys
	450					455					460				
Thr	He	Asp	Arg	Leu	Ala	Gly	Lys	Pro	Thr	His	Val	Asn	Val	Ser	Val
465					470					475					480
Va]	Met	Ala	Glu		Asp	Gly	Thr	Cys	Tyr						
				485					490						

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<213> Homo sapiens
<400> 4233
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Ser Ile Glu Ser Phe Leu Gly Arg Ser Ser Cys Ile Ala Glu Ile His
             20
                                  25
Thr Asp Leu Asp His Thr Gly Tyr Asn Glu Pro Arg Lys Asn His Ser
                             40
Glu Trp Lys Ile Thr Leu Lys Glu Met Ala Gln Ile Arg Arg Lys Cys
     50
                         55
Glu Met Phe Thr Tyr Leu Arg Phe Asp Ser Glu Ile Thr Ile Val Val
                     70
                                          75
Ser Val Ala Ser Lys Gln Gly Asp Asn Gly His Val Val lle Gln Tyr
                 85
                                     90
Met Tyr Val Pro Pro Gly Ala Pro Ile Pro Lys Thr Arg Asp Asp Tyr
            100
                                105
                                                     110
Thr Trp Gln Ser Gly Thr Asn Ala Ser Val Phe Trp Gln Gln Gly Gln
                            120
Pro Tyr Pro Arg Phe Thr lle Pro Phe Met Ser Ile Ala Ser Ala Tyr
    130
                        135
                                             140
Tyr Met Phe Tyr Asp Gly Tyr Glu Asp Asp Asn Gly Thr Thr Tyr Gly
145
                    150
                                         155
Ala Ala Val Thr Asn Asp Met Gly Thr Leu Cys Val Arg Ile Val Thr
                165
                                     170
Glu Gln Gln Lys Asn Glu Val Lys Ile Thr Ser Arg Val Tyr His Lys
            180
                                                     190
                                185
Ala Lys His Ile Ser Ala Trp Cys Pro Arg Pro Pro Arg Ala Val Ala
                            200
Tyr Gln His Thr Tyr Ser Pro Asn Phe Val Pro Pro Thr Gly Ala Val
    210
                        215
                                             220
Gln Thr His Ile Lys Phe Arg Pro Asn Val Lys Asp Val Thr Ser Val
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228	5				230					235					240
Met	Thr	Ala	Gly	Pro	Ser	Asp	Leu	Tyr	Val	His	Ser	Ser	Asn	Phe	11e
				245					250					255	
Туз	Arg	Asn	Leu	His	Leu	Cys	Glu	Pro	Glu	Asn	Leu	Asn	Asp	Ser	Val
			260					265					270		
Lei	ı lle	Ser	Tyr	Ser	Ser	Asp	Leu	Val	lle	Tyr	Arg	Thr	Asn	Thr	Thr
		275					280					285			
Gly	/ Asp	Asp	He	lle	Pro	Thr	Cys	Asp	Cys	Thr	Leu	Gly	Thr	Tyr	Tyr
	290					295					300				
Cys	Lys	His	Lys	Asp	Arg	Tyr	Tyr	Pro	Ile	Ser	Val	Thr	Lys	His	Gln
308	5				310					315					320
Tr	Tyr	Glu	He	Gln	Glu	Ser	Asp	Tyr	Tyr	Pro	Lys	His	He	Gln	Tyr
				325					330					335	
Ası	ılle	Leu	Leu	Gly	Val	Gly	Pro	Cys	Lys	Pro	Gly	Asp	Cys	Gl y	G1y
			340					345					350		
Lys	Leu	Leu	Cys	Lys	His	Gly	Val	He	Gly	lle	He	Thr	Ala	Gly	Gly
		355					360					365			
Ası	Asn	His	Val	Ala	Phe	He	Asp	Leu	Arg	Asp	Phe	Gln	Val	Ala	Glu
	370					375					380				
Glu	ı Gln	Gly	He	Pro	Glu	Tyr	He	His	Ser	Leu	G1 y	Glu	Ala	Phe	Gly
388	5				390					395					400
Sei	Gly	Phe	Val	Asp	Asn	lle	Lys	Asp	Gln	lle	Gln	Thr	lle	Asn	Pro
				405					410					415	
116	e Asn	Lys	lle	Ser	Ser	Lys	He	Val	Lys	Trp	Val	lle	Arg	He	He
			420					425					430		
Sei	· Ala	lle	Thr	He	lle	He	Arg	Asn	Asn	Ala	Asp	Pro	His	Thr	He
		435					440					445			
Пе	e Ala	Thr	Leu	Ala	Leu		Gly	Cys	Ser	Gly	Ser	Pro	Trp	Arg	Phe
	450					455					460				
	Lys	Glu	Lys	Val		Gly	Trp	Leu	Gln		Λsn	Tyr	lle	His	
468					470					475					480
G]ı	ı Ser	Asp	Gly		lle	Lys	Lys	Phe		Glu	Met	Cys	Asn		Ala
				485					490					495	_
Arg	gGly	Leu		Trp	Leu	G1 y	Asn		He	Ser	Lys	Phe		Asp	Trp
			500	,		0.3		505					510		
Lei	i Lvs	Ser	Met	Leu	Pro	Gln	Ala	Arg	1 611	Lvs	Val	Asp	Phe	110	LVS

		515					520					525			
Asn	Leu	Lys	Gln	Leu	Pro	Leu	Leu	Glu	Lys	Gln	Val	Asp	Gly	Leu	Arg
	530					535					540				
Leu	Ala	Thr	Gln	Lys	Gln	Gln	Gln	Glu	Tyr	lle	Asp	Thr	Leu	Thr	Leu
545					550					555					560
Met	Leu	Asp	Ser	Ser	Asn	Lys	Phe	Leu	Pro	Leu	Tyr	Ala	Leu	Glu	Asn
				565					570					575	
Lys	Arg	He	Lys	Glu	Leu	Leu	Lys	Arg	Gly	Gln	Met	Пe	Leu	Arg	Thr
			580					585					590		
Ser	Lys	Arg	Thr	Glu	Pro	Val	Gly	Val	Ile	Phe	His	Gly	Glu	Pro	Gly
		595					600					605			
Thr	Gly	Lys	Ser	11e	Thr	Thr	Ser	Пе	Leu	Ala	Arg	Met	Leu	Thr	Ser
	610					615					620				
Glu	Ser	Asp	11e	Tyr	Ser	Leu	Pro	Pro	Ser	Pro	Lys	Tyr	Phe	Asp	Gly
625					630					635					640
Tyr	Asp	Gln	Gln	Ser	Va]	Val	He	Met	Asp	Asp	He	Met	Gln	Asn	Pro
				645					650					655	
Ser	Gly	Glu	Asp	Met	Ser	Leu	Phe	Cys	Gln	Met	Val	Ser	Ser	Val	Pro
			660					665					670		
Phe	lle	Pro	Pro	Met	Ala	Asp	Leu	Pro	Asp	Lys	Gly	Lys	Pro	Phe	Ser
		675					680					685			
Ser	Asp	Tyr	Va]	Leu	Ala	Ser	Thr	Asn	His	Thr	Leu	Leu	His	Pro	Pro
	690					695					700				
Thr	He	Thr	Cys	Thr	Thr	Ala	Met	Asn	Arg	Arg	Phe	Phe	Leu	Asp	Leu
705					710					715					720
Asp	He	He	Val	Lys	Asp	Asp	Tyr	Lys	Leu	Gly	Gln	Gly	Lys	Leu	Asn
				725					730					735	
Leu	Gln	Cys		Leu	Lys	Pro	Cys		Glu	Gly	Lys	Tle		Asn	Ala
			740					745					750		
Lys	Cys		Pro	Leu	He	Cys		Lys	Ala	Leu	Gln		Arg	Asp	Arg
_		755				_	760				_	765			
Ser		Gly	G] u	His	Leu	Ser	Leu	Ala	Thr	He		Asn	Arg	He	Thr
0.7	770					775	6.3		mı		780		0.7		
	G1u	Ser	Lys	Asn		Lys	Glu	Leu	Thr		Ser	Leu	GIn	Ala	
785	0.1	0.7	13	17	790	T 1	V 2			795 D	Б	D	D	4.3	800
Pho	L. In	1.137	Pro	110	Acn	Tlo	V a l	Acn	INC	Pro	Pro	Pro	PTC	ALO	110

				805					810					815	
Val	Asp	Leu	Leu	Lys	Ser	Val	Arg	Ser	Pro	Asp	Va]	lle	Arg	Tyr	Cys
			820					825					830		
Glu	Glu	Asn	Lys	Trp	He	He	Pro	Ala	Asp	Cys	Arg	Leu	G] u	Arg	Asp
		835					840					845			
Leu	Asn	Tyr	Ala	Asn	Val	He	He	Ser	Met	He	Ala	Asn	Val	He	Ser
	850					855					860				
Пе	Met	Gly	Val	lle	Tyr	He	Пе	Tyr	Lys	Leu	Phe	Cys	Ser	Leu	G1n
865					870					875					880
Gly	Pro	Tyr	Ser	Gly	Glu	Pro	Lys	Pro	Val	Thr	Arg	Lys	Pro	Glu	Arg
				885					890					895	
Arg	Val	Va]	Thr	Gln	Gly	Pro	61n	Glu	Glu	Phe	Gly	Arg	Ser	Leu	Met
			900					905					910		
Lys	His	Asn	Thr	Cys	Val	Val	Thr	Thr	Asn	Asn	Gly	Lys	Phe	Thr	Gly
		915					920					925			
Leu	Gly	He	Tyr	Asp	Asn	Val	Met	11e	He	Pro	Thr	His	Ala	Asp	Ala
	930					935					940				
Gly	Gln	Glu	Val	Glu	Va]	Asp	Gly	He	Lys	Thr	Lys	Val	Ser	Asp	Ala
945					950					955					960
Tyr	Asp	Leu	Tyr	Asn	Thr	Gln	Gly	Val	Lys	Leu	Glu	He	Thr	Val	Leu
				965					970					975	
Lys	Leu	Asn	Arg	Asn	G]u	Lys	Phe	Arg	Asp	Пe	Arg	Lys	Tyr	He	Pro
			980					985					990		
Glu	Ser	Glu	Asp	Asp	Tyr	Ser	Glu	Cys	Cys	Leu	Ala	Leu	Val	Ala	Asn
		995					1000					1005			
Gln	Val	G]u	Pro	Thr	lle	Leu	Glu	Val	Gly	Asp	Cys	Cys	Ser	Tyr	Gly
	1010					1015					1020				
		Leu	Leu			Asn	Gln	Thr	Ala	Arg	Met	He	Lys	Tyr	Asn
1025					030					1035					040
Tyr	Pro	Thr	Lys		Gly	Phe	Cys	G1 y	Gly	Val	Leu	Tyr	Lys	lle	G1 y
_				045					1050					055	
Leu	He		Gly	lle	His	Val			Asn	Gly	Arg			Phe	Ser
			. 060		_	_		065					1070		
Ala			Leu	Arg	Ser			Asn	Glu	Gln			Lys	He	Val
c		075		17 1			080					085			
Ser	LVS	Ala	Asp	Val	Lvs	Glu	His	Asn	Len	Tyr	Ser	He	Hie	Thr	Pro

			1100					1095	j				090]
Pro Gly	Phe I	Val	Asp	His	Phe	Val	Ser	Pro	Gln	Leu	Lys	Thr	Lys	Thr
1120				1115					1110				5	1105
Glu Val	Leu (Arg	Pro	Asp	Arg	Thr	Ser	Leu	Val	Ala	Pro	Glu	Lys	Ser
135	1				1130					1125				
Ala Val	Glu	Asn	Gly	Lys	Tyr	Lys	Ser	Phe	He	Ser	Ser	Asp	Leu	Asp
	1150					1145					1140			
Ala Gln	Thr	Tyr	His	Ala	Ala	Ala	Val	Leu	Met	Asn	Glu	Ser	Пе	Lys
		1165					1160					1155		
Asp Ser	Glu	Leu	Ser	He	Pro	Gln	Pro	Asp	Ile	Asp	Leu	Thr	Thr	Leu
			1180					1175					170	į
Ser Ala	Thr S	His	Leu	Asp	Leu	Ala	Glu	Leu	Gly	Glu	He	Gly	Tyr	Val
1200				1195					1190				ō	1189
lle Pro	Leu	Asp	Lys	Lys	Lys	He	Gly	His	Ala	Thr	Tyr	Pro	Tyr	Gly
215	13				1210					1205				
Tyr Gly	Lys	Glu	Met	Ala	He	Lys	Leu	Lys	Thr	Leu	Asn	Lys	Asp	Lys
	1230					1225					1220			
Lys Pro	Arg	Leu	Glu	Asp	Lys	Leu	Phe	Thr	He	Met	Pro	Leu	Asp	Leu
		1245					1240					1235		
Ser Leu	Ser S	Ala	Glu	He	He	Arg	Thr	Lys	Gly	Thr	Ser	He	Lys	Glu
			1260					1255					250	
Ser Lys	Phe	Leu	Asn	Gly	Phe	Ala	Met	Arg	Phe	Gln	Val	Thr	Asp	Asn
1280				1275					1270					126
Cys Asp	Gly (Val	Ala	Ser	Gly	Thr	Val	He	G1 y			Lys	His	Phe
295					1290					1285				
Asp Cys	Gly .	Asp	Leu	Met	Va]	Pro	He	Lys	Ser	Trp	Phe	Val	Glu	Pro
	1310					1305		_	_		1300			
Pro Val	Asn			Gly	Asp	Tyr			Tyr	Asp	Phe			Leu
D 01	1 21	1325					1320			,		1315		
Pro Gly	Phe	GLV			Asn	Leu	Val			Leu	Leu	GIn		
TI TI		æ	1340			C		1335				57 1	330	
Thr Thr	Lys	Lyr	116			Ser	H1S	Cys			Asn	Val		
1360	01	. 7	0	1355				0.1	1350			0.1		134
Thr Ser		Ala	Cys	Ыу			Met	ыу	Gly			61u	I yır	lyr
375		T1	Δ	71.	1370		Λ	A	T 1	1365		Λ .=	DI	тэ.
Valleu														

			1380					1385				1390				
Asp	Thr	Tyr	Lys	Tyr	He	Λsn	Leu	Asp	Lys	Leu	Lys	He	Leu	Ala	Tyr	
		1395					1400					1405				
Gly	Asp	Asp	Val	Leu	Phe	Ser	Tyr	Pro	Tyr	Asp	Leu	Asp	Met	Ala	Glu	
. 1	410					1415]	1420					
Leu	Ala	Lys	Glu	Gly	Asn	Lys	Tyr	Gly	Leu	Thr	He	Thr	Pro	Ala	Asp	
1425	1425]	1430					1435]	1440	
Lys	Ser	Asp	Lys	Phe	Glu	Lys	Leu	Asn	Tyr	Glu	Asn	Ala	Thr	Phe	Leu	
]	1445]	1450					1455		
Lys	۸rg	Gly	Phe	Lys	Gln	Asp	Asp	Arg	Tyr	Lys	Phe	Leu	He	His	Pro	
	1460]	1465 1470 rp Glu Ser Ile Arg Trp Thr Lys								
He	Tyr	Pro	Glu	Ser	Glu	Val	Trp	Glu	Ser	He	Arg	Trp	Thr	Lys	Ser	
]	1475]	1480					1485				
Pro	Arg	Asn	Met	Gln	Glu	His	Val	Leu	Ser	Leu	Cys	His	Leu	Met	Trp	
1	490				1	1495			1500							
His	Asn	Gly	Lys	Asp	Lys	Tyr	Asp	Ser	Phe	Val	Asn	Lys	lle	Arg	Ser	
1505	;]	510				1	1515]	520	
Val	Ser	Ala	Gly	Arg	Ala	Leu	Tyr	He	Pro	Pro	Tyr	Glu	Leu	Leu	Leu	
]	525]	530]	1535		
His	Glu	Trp	Tyr	Glu	Lys	Phe										
]	540													
791A	N 49	224														

<211> 366

<212> PRT

<213≻ Homo sapiens

<400> 4234

Met 61n Ser Val 61n Lys Met Phe Lys Cys His Pro Asp Glu Val Met 1 $$ $$

Lys	Arg	Thr	Leu	Phe	Tyr	Ser	Ser	Pro	Leu	Leu	Gly	Pro	Ser	Ser	Thr
65					70					75					80
Ser	Glu	Ala	Val	Gly	Ser	Ser	Ser	Pro	Arg	Asn	Gly	Leu	Gln	Asp	Lys
				85					90					95	
His	Leu	Met	Glu	Gln	Ser	Ser	Pro	Gly	Phe	Arg	Gln	Thr	His	Leu	Gln
			100					105					110		
Asp	Leu	Ser	Glu	Ala	Thr	Gln	Asp	Val	Lys	Glu	Glu	Asn	His	Tyr	Leu
		115					120					125			
Thr	Pro	Arg	Ser	Val	Leu	Leu	Glu	Leu	Asp	Asn	He	He	Ala	Ser	Ser
	130					135					140				
Asp	Ser	Gly	Glu	Ser	lle	Glu	Thr	Asp	Gly	Pro	Asp	Gln	Val	Ser	G1 y
145					150					155					160
Arg	He	Glu	Cys	His	Tyr	Glu	Pro	Met	Glu	Ser	Tyr	Phe	Phe	Lys	Glu
				165					170					175	
Thr	Ser	His	Glu	Ser	Val	Asp	Ser	Ser	Lys	Glu	Glu	Pro	Gln	Thr	Leu
			180					185					190		
Pro	Glu	Thr	Gln	Asp	Gly	Asp	Leu	His	Leu	Gln	Glu	Gln	Gly	Ser	Gly
		195					200					205			
He	Asp	Trp	Cys	Leu	Ser	Pro	Ala	Asp	Val	Glu	Ala	Gln	Thr	Thr	Asn
	210					215					220				
Asp	Gln	Lys	Gly	Asn	He	Pro	Asp	Glu	Ser	Gln	Val	Glu	Lys	Leu	Asn
225				٠	230					235					240
Val	Phe	Leu	Ser	Pro	Pro	Asp	Val	He	Asn	Tyr	Leu	Ala	Leu	Thr	Glu
				245					250					255	
Ala	Thr	G1 y	Arg	He	Cys	Val	Ser	Gln	Trp	G1u	Gly	Pro	Pro	Arg	Leu
			260					265					270		
GI y	Cys	He	Phe	Cys	His	G]y		His	Leu	Leu	Ala	Val	Asn	Asp	Leu
		275					280					285			
Lys		Gln	Ser	Leu	Glu		Va]	Ser	Leu	Phe	Leu	Thr	Arg	Ser	11e
	290					295					300				
	Lys	Glu	Lys	Leu		Leu	Thr	He	Gly		He	Pro	Asn	Ser	
305					310					315					320
Thr	Phe	His	Ala		Ser	Cys	Met	Cys		Ser	Lys	Cys	Gln	Ser	Ala
				325					330					335	

Ala Pro Ser Gln Leu Asp Lys Pro Arg Leu Asn Arg Ala Pro Lys Arg

340

Ser Pro Ala Ile Lys Lys Ser Gln Gln Lys Gly Ala Arg Glu

355

360

360

365

<210> 4235

<211> 213

<212> PRT

<213> Homo sapiens

<400> 4235

Met Lys Pro Pro Met Ser Trp Trp Lys Ala Tyr Leu Leu Ser 11e Ser 1 $\overline{}$ 5 $\overline{}$ 10 $\overline{}$ 15

His Ala Lys Lys Ala Gly Thr Cys 11e His Phe Ser Lys Arg Glu Asn 20 25 30

Glu Ile Gln Arg Ser lle Val Thr Cys Pro Lys Ser His Ser Trp His
35 40 45

Ser Asp Pro Asn Leu Ser Lys Ser Lys Ala Trp Val Leu Pro Leu Gln 50 55 60

Arg Gly Gln Pro Gln Pro Ala Phe Leu His Arg Leu Arg Gln Arg Tyr
65 70 75 80

Met Leu Cys Pro Leu Arg Ala Leu Leu Leu Gln Thr Tyr Phe Val Lys
85 90 95

Met Ala Gln Pro Gly Cys Leu Gly Asp Arg Lys Pro His Asn Gly Arg 100 105 110

Thr Lys Glu Gly Ala Val Gly Leu Ser Thr Ser lle Lys Thr Asn Arg 115 120 125

Pro Thr Arg Ser Thr Arg Leu Pro Ser Thr Ala Asp Leu Glu Ile Lys 130 135 140

Ser Phe Arg Arg Ala Leu Leu Ser Leu Ser Ile Arg Tyr Lys Ile Ser 145 150 155 160

Ser Pro Leu Ser Cys Trp Gly Tyr Leu Asp Ser Leu Ser Phe Ser Gly
165 170 175

Val Pro Val Tyr Lys Thr Pro Glu Arg Ala Gln Trp Leu Thr Pro Ile 180 185 190 lle Pro Ala Leu Trp Glu Ala Lys Ala Gly Arg Ser Pro Glu Ala Gly
195 200 205

Ser Ser Arg Ser Ala

Ser Ser Arg Ser Ala 210

<210> 4236

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4236

Met Glu Thr Trp Gly Gly Arg Lys Leu Ser Arg Asp Thr Val Pro Pro

1 5 10 15

Cys lle Thr Glu Met Pro Gly Gln Ser Asp Leu Pro Gln Glu Ala Ser 20 25 30

Pro Ala Ala Pro Val Pro Glu Met Ser Gly Glu Arg Ala Ser Arg Glu 35 40 45

Ala Gly Ala Trp Ala Lys Arg Gly Ala Thr Gln Phe Phe Gln Asn lle 50 55 60

Pro Val Trp Pro Met Asp Thr Gly Leu Leu Met Ser Arg Glu Gly Leu 65 70 75 80

Leu Ser Ser Ser Arg Thr Phe Gln Cys Gly Pro Trp Thr Pro Ala Phe 85 90 95

Trp Gly Pro Phe Cys Pro Val Ser Leu Gln Leu Met Ser Cys Leu Arg 100 105 110

Pro Glu Leu Pro Lys Ser Arg Thr Ala His Tyr Leu Leu 115 120 125

<210> 4237

<211≥ 331

<212> PRT

<213> Homo sapiens

<400> 4237

Met	He	Arg	Lys	Asn	Asn	Tyr	Thr	Leu	Pro	Ser	Arg	He	Ser	Phe	Phe
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Cys	Ser	Leu	Pro	Thr	Phe	Cys	Ser	Asn	His	11e	Asn	Lys	Ser	Cys	Ph€
			20					25					30		
Phe	Phe	Ala	Val	Cys	He	Ala	Ser	Gly	Thr	Lys	Val	Ala	Leu	Phe	Asn
		35					40					45			
Arg	Leu	Arg	Ser	Gln	Thr	Val	Ser	Thr	Arg	Tyr	Leu	His	Val	Glu	Gly
	50					55					60				
Gly	Asn	Phe	His	Ala	Ser	Ser	Gln	Gln	Trp	Gly	Ala	Phe	Phe	Ile	His
65					70					75					80
Leu	Leu	Asp	Asp		Glu	Ser	Glu	G]y		Glu	Phe	Thr	Val	Arg	Asp
	_			85					90					95	
G1y	Tyr	He		Tyr	Gly	GIn	Thr		Lys	Leu	Val	Cys		Val	Thr
61			100	Б		,		105					110	6.1	
Gly	Met		Leu	Pro	Arg	Leu		He	Arg	Lys	Val		Lys	Gln	Thr
11 0	Lan	115	A a.m.	11.	A	A	120	V - 1	C	C1	1	125	1	C	A 1
Ата	130	Leu	ASP	мта	Asp		Pro	vai	ser	GIN		HIS	Lys	Cys	A1a
Pho		Lou	Lvc	Acn	The	135	Ara	Mot	Tur	Lou	140	Lou	San	Gln	C1
145	1) 1	LCu	Lys	пэр	150	Q.L.C.	M g	Mec	1 y 1	155	Cys	Leu	361	OIII	160
	He	He	Gln	Phe		Ala	Thr	Pro	Cvs		Lvs	Glu	Pro	Asn	
6				165	0				170		13,15	GIG	110	175	Lyo
Glu	Met	He	Asn		G1v	Ala	Ser	Trp		He	He	Ser	Thr	Asp	Lvs
			180	·	•			185					190		
Leu	Asn	Gly	Gly	Gly	Asp	Val	Ala	Met	Leu	Glu	Leu	Thr	G1 y	G1n	Asn
		195					200					205			
Phe	Thr	Pro	Asn	Leu	Arg	Val	Trp	Phe	Gly	Asp	Val	Glu	Ala	Glu	Thr
	210					215					220				
Met	Tyr	Arg	Cys	Gly	Glu	Ser	Met	Leu	Cys	Val	Va]	Pro	Asp	Пе	Ser
225					230					235					240
Ala	Phe	Arg	Glu	Gly	Trp	Arg	Trp	Val	Arg	Gln	Pro	Val	Gln	Val	Pro
				245					250					255	
Val	Thr	Leu	Val	Arg	Asn	Asp	Gly	Пе	He	Tyr	Ser	Thr	Ser	Leu	Thr
			260					265					270		
Phe	Thr	Tyr	Thr	Pro	Glu	Pro	Gly	Pro	Arg	Pro	His	Cys	Ser	Ala	Ala
		275					280					285			

 Gly
 Ala
 Ile
 Leu
 Arg
 Ala
 Asn
 Ser
 Ser
 Gln
 Val
 Pro
 Asn
 Glu
 Ser

 Asn
 Thr
 Asn
 Ser
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 Gly
 Ser
 Tyr
 Thr
 Asn
 Ala
 Ser
 Thr
 Asn
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<210> 4238

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4238

Met Leu Leu Gly Ser Val Glu Gly Gln Ala Gly Ala Arg Gln Leu Ser 1 5 10 15

Ser Leu Ala Asn Gly Ala Thr Glu Asp Ser Lys Gln Asp Leu Cys Ser 20 25 30

Arg Leu His Cys Leu Trp Val Glu Pro Arg Glu lle Asp Asn Ile Arg 35 40 45

Pro Phe Arg Ala Lys Thr Asn Ala Ser Phe Ala Gly Cys Ser Leu Thr 50 55 60

Glu Arg Leu Leu Gly Gly Leu Cys Arg Gly Trp Met Ser Arg Gly His
65 70 75 80

Pro Pro Glu Pro Ala Trp Gly Pro Gly Ser Glu Ala He Gly Pro Val 85 90 95

Val Ser Arg Phe Ser Cys Arg Leu Gly Glu Arg Gly Gly Ser Arg Asn 100 105 110

Thr Glu Glu Val Lys Arg Gln Ser Arg Gly Asp Gly Val Pro Gln Arg 115 120 125

Arg Arg Ser Thr Glu Ala Glu Val Gln Ala Cys Arg His Val Asp His 130 135 140

Glu Tyr Ser Ala Arg Ser Val Gly Val Ser Ser Glu Leu His Gln Phe 145 150 155 160

Pro Gly Tyr Leu Gly Pro Trp Ile Thr Leu Arg Ser Ala Thr Cys Gln

				165					170					175	
Leu	He	Ser	Lys	Leu	Leu	Leu	Ala	Gly	Leu	Arg	Leu	Ser	Arg	Glu	His
			180					185					190		
Leu	Gly	Glu	Pro	Cys	Alа	Ala	Gly	Trp	Thr	Pro	Ala	His	Leu	Ala	Asp
		195					200					205			
Tyr	Ser	Cys	Phe	Cys	Ser	Pro	Val	Cys	Pro	Gln	Glu	Va]	Arg	Ala	Cys
	210					215					220				
Leu	Leu	Phe	Leu	His	Asp	His	G1 y	Arg	Arg	Gly	Thr	Asn	Met	Arg	Val
225					230					235					240
Leu	Ala	Ser	Pro	Gln	Trp	Trp	Leu	Pro	Arg	Ala	Gly	Glu	Thr	Leu	G1 y
				245					250					255	
Glu	Gly	Leu	Gly	Gln	Gly	Pro	Leu	Ser	Leu	Ala	Ala	Thr	Ala	Trp	Val
			260					265					270		
Asn	Cys	Leu	Ala	Gly	Leu	Ala	Ala	Arg	Ala	Gln	Lys	Ala	Glu	Ala	Leu
		275					280					285			
Pro	Ala	Phe	Ser	Ser	His	Pro	Ala	Pro	Met						
	290					295									

<211> 517

<212> PRT

<213> Homo sapiens

<400> 4239

Met Asp Leu Gly Leu Tyr Trp Val Phe Leu Val Ala lle Leu Glu Gly 10 Val Glu Cys Glu Val Gln Leu Glu Gln Ser Gly Gly Gly Leu Val Lys 25 Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Leu 35 45 40 Ser Pro Tyr Glu Val Asn Trp Val Arg Arg Ala Pro Gly Lys Gly Leu 55 60 Glu Trp Ile Ala Tyr Ile Ser Ser Gly Ser Lys Arg Tyr Tyr Gly 65 70 75 80

Asp Ser Val Thr Gly Arg Val Ser lle Ser Arg Asp Ser Ala Gln Asn

				85					90					95	
Ser	Val	Ser	Leu	Gln	Met	Ser	Gly	Leu	Arg	Va]	Glu	Asp	Thr	Gly	Val
			100					105					110		
Tyr	Tyr	Cys	Ala	Arg	Val	Asp	Trp	Asn	His	Phe	Tyr	Phe	Phe	Met	Asp
		115					120					125			
Val	Trp	Gly	Lys	Gly	Thr	Thr	Val	He	Val	Ser	Ala	Ala	Ser	Thr	Lys
	130					135					140				
Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Gly
145					150					155					160
Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro
				165					170					175	
Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr
			180					185					190		
Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val
		195					200					205			
Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Thr	Cys	Asn
	210					215					220				
Val	Asn	His	Lys	Pro		Asn	Thr	Lys	Val		Lys	Arg	Val	Glu	Leu
225					230					235					240
Lys	Thr	Pro	Leu		Asp	Thr	Thr	His		Cys	Pro	Arg	Cys	Pro	Glu
_				245			_		250	_			_	255	
Pro	Lys	Ser		Asp	Thr	Pro	Pro		Cys	Pro	Arg	Cys		Glu	Pro
		0	260	m.i	Б	15	rs.	265	Б				270	F3	
Lys	Ser		Asp	lhr	Pro	Pro		Cys	Pro	Arg	Cys		61u	Pro	Lys
C	6	275	TI	15	13	D	280	I)		C	D	285	D	C I	
Ser		Asp	Inr	Pro	Pro		Cys	Pro	Arg	Cys		Ala	Pro	Glu	Leu
Lau	290	C1	Dwo	San	Vol.	295	Lau	Dlag	Dwo	Dana	300	Dno	Lua	1 0 0	Than
305	бту	Gly	110	Se1	310	rne	Leu	rne	110	315	LyS	110	Lys	Asp	320
	Mot	Ho	Sor	Ana		Dro	Clu	Vol	The		Vol.	Vo 1	Va.1	Asp	
Leu	Met	116	361	325	1111	110	Glu	vai	330	Cys	val	vai	vai	335	1 (11
Ser	His	Glu	Asn		Glo	Val	Gln	Phe		Trn	Tyr	Val	Asn	Gly	Val
561	111.5	Olu	340	110	Olu	, 61	OTH	345	Lys	пр	1 5 1	101	350	OT Å	V 61.1.
Glo	Val	Hie		Ala	Lve	Thr	Lve		Aro	Glo	Glo	Glo		Asn	Ser
J. U	, 01	355	/1011	1116	د. ورد	1111	360	110	ni g	O, U	GIU	365	1 7 1	11011	ار ب ب
Thr	Phe		Val	Val	Ser	Val		Thr	Val	Leu	His		Asp	Trn	Leu

	370					375					380				
Asr	ı Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala
385	5				390					395					400
Pro) He	Glu	Lys	Thr	He	Ser	Lys	Thr	Lys	Gly	Gln	Pro	Arg	Glu	Pro
				405					410					415	
Glr	ı Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	GIn
			420					425					430		
Va]	Ile	Leu	Thr	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	He	Ala
		435					440					445			
Va]	Glu	Trp	Glu	Ser	Ser	G1 y	Gln	Pro	Glu	Asn	Asn	Tyr	Asn	Thr	Thr
	450					455					460				
Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu
465	,				470					475					480
Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	Gln	G1 y	Asn	He	Phe	Ser	Cys	Ser
				485					490					495	
Val	Met	His	Glu	Ala	Leu	His	Asn	Arg	Phe	Thr	Gln	Lys	Ser	Leu	Ser
			500					505					510		
Leu	Ser	Pro	Gly	Lys											
		515													
	0> 42														
	1> 42														
	2> PI														
<21	3> He	omo s	sapio	ens											
<40	0> 42	240													
	Ala		Glu	Phe	lle	lvs	Ser	Cvs	Cve	Glv	Glv	Cve	Pho	Tyr	Gly
1			oru	5	110	1.35	501	Cys	10	Oly	01 y	Cys	THE	15	Ory
	Thr	Glu	Lvs		Asn	Phe	Ser	Val		Arg	Aen	Pho	lve		ΔΊα
510		J 1 G	20	1110	.1011		501	25	01 u	5	пэр	THE	30	1110	1114
Val	Pro	Asn		G1n	Asn	Ala	Thr		Ser	Val	Pro	Pro		Thr	Ser
1		35		~			40					45	1.0u	1113	001
Va]	Ser		Lvs	Pro	Gln	Leu		Cvs	Thr	Glu	Glv		Leu	Leu	Ser
_				-											

Lys Leu Pro Ser Asp Gly Lys Glu Val Pro Phe Val Val Pro Lys Phe

60

65					70					75					80
Lys	Leu	Ser	Tyr	Ile	Gln	Pro	Arg	Thr	G1n	Glu	Thr	Pro	Ser	His	Leu
				85					90					95	
Glu	Glu	Leu	Glu	Gly	Ser	Ala	Arg	Ala	Ser	Phe	Gly	Asp	Arg	Lys	Val
			100					105					110		
Glu	Leu	Ser	Ser	Ser	Ser	Gln	His	Gly	Pro	Ser	Tyr	Asp	Val	Tyr	Asn
		115					120					125			
Pro	Phe	Tyr	Met	Tyr	Gln	His	Ile	Ser	Pro	Asp	Leu	Ser	Arg	Arg	Phe
	130					135					140				
Pro	Pro	Årg	Ser	Glu	Val	Thr	Arg	Leu	Tyr	Gly	Ser	Val	Cys	Asp	Leu
145					150					155					160
Arg	Thr	Asn	Lys	Leu	Pro	Gly	Ser	Pro	Gly	Leu	Ser	Lys	Ser	Met	Phe
				165					170					175	
Asp	Leu	Thr	Asn	Ser	Ser	Gln	Arg	Phe	11e	Gln	Arg	His	Asp	Ser	Leu
			180					185					190		
Ser	Ser	Val	Pro	Ser	Ser	Ser	Ser	Ser	Arg	Lys	Asn	Ser	Gln	Gly	Ser
		195					200					205			
Asn	Arg	Ser	Leu	Asp	Thr	He	Thr	Leu	Ser	Gly	Asp	Glu	Arg	Asp	Phe
	210					215					220				
Gly	Arg	Leu	Asn	Val	Lys	Leu	Phe	Tyr	Asn	Ser	Ser	Val	Glu	Gln	He
225					230					235					240
Trp	He	Thr	Val	Leu	Gln	Cys	Arg	Asp	Leu	Ser	Trp	Pro	Ser	Ser	Tyr
				245					250					255	
G1 y	Asp	Thr	Pro	Thr	Val	Ser	He	Lys	G1 y	He	Leu	Thr	Leu	Pro	Lys
			260					265					270		
Pro	Val	His	Phe	Lys	Ser	Ser	Ala	Lys	Glu	Gly	Ser	Asn	Val	Cys	His
		275					280					285			
Ala		Leu	Glu	Leu	Gly		Cys	Phe	Gln	Ala		Asn	Ser	Arg	He
	290					295					300				
	Leu	Gln	He	Leu		Ala	Arg	Tyr	Leu		Ser	Ser	Ser	Thr	
305	an i		C	121	310					315		_	_		320
Leu	Ihr	Leu	Ser		Phe	Val	Lys	Val		Met	Phe	Ser	Ser		Glu
1	7.7	т.	1.	325		TI	4	,	330		A 13	c		335	
ren	116	Tyr		Lys	Lys	Ihr	Arg		Leu	Lys	Ala	Ser		61 y	Arg
Vo.1	1 ,, ~	Trp	340	C1	ТЬ	Mes	11 -	345	D.	1	77.	Ć1	350	C1	1.
val	LVS	-	UIV	ULU	inr	ATC: T	116	rne	rro	1.611	116	uin	Ser	11111	IVS

Glu Ile Val Phe Leu Ile Lys Leu Tyr Ser Arg Ser Ser Val Arg Arg Lys His Phe Val Gly Gln Ile Trp Ile Ser Glu Asp Ser Asn Asn Ile Glu Ala Val Asn Gln Trp Lys Glu Thr Val Ile Asn Pro Glu Lys Val Val Ile Arg Trp His Lys Leu Asn Pro Ser <210> 4241 <211> 114 <212> PRT <213> Homo sapiens <400> 4241 Met Asn Glu Arg Gln Gly Leu Ala Leu Leu Pro Arg Leu Gln Cys Ser Gly Lys 11e Ser Ala His Cys Ser Leu Lys His Leu Gly Ser Ser Asp Pro Pro Thr Phe Ala Ser Gln Val Ala Gly Thr Thr Gly Val His Gln His Val Tyr Leu lle Phe Val Phe Phe Val Glu Met Gly Ser His Asn Val Val Gln Ala Gly Leu Lys His Leu Gly Ser Ser Asp Pro Pro Thr

Ser Ala Ser Gln Ser Ala Gly Ile Ile Gly Leu Ser His Gln Ala Thr

Arg Pro Val Cys Leu Phe lle Tyr Leu Gln Ser Leu Thr Leu Leu Pro

Arg Leu

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<211> 117
<212> PRT
<213> Homo sapiens
<400> 4242
Met Leu Leu Ala Lys His Val Lys His Tyr Gly Gln Gln Met Lys
Leu Ser Met Lys His Gln Leu Pro Lys Met Lys Thr Phe His Glu Pro
             20
                                  25
Thr Thr Ile Leu Gly Asn Ser Leu Pro Lys Cys Thr Glu Ile Lys Pro
                              40
                                                  45
Glu Val Asn Thr Leu Thr Ala Glu Asn Lys Leu Trp Asp Asp Ala Lys
                         55
                                              60
Asn Gly Phe Ala Arg Cys Thr Ala Ala Glu IIe Gln Arg Phe Ala Phe
 65
                     70
                                          75
                                                              80
Ser Ala Thr Gly Leu Leu Ser His Val Glu Glu Gly Leu Asp Ser Asp
                 85
                                      90
Ala Thr Asp Ser Ser Ser Asp Asp Leu Asp Glu Tyr Thr Leu Arg
                                 105
                                                     110
Lys Asn Val Ala Val
        115
<210> 4243
<211> 118
<212> PRT
<213> Homo sapiens
<400> 4243
Met Gly Leu Leu Ala Phe Arg Asp Val Ala Leu Glu Phe Ser Pro Glu
 1
                  5
                                      10
                                                          15
Glu Trp Glu Cys Leu Asp Pro Ala Gln Arg Ser Leu Tyr Arg Asp Val
             20
                                 25
Met Leu Glu Asn Tyr Arg Asn Leu Ile Ser Leu Gly Leu Ala Met Ser
         35
                             40
                                                  45
```

Lys Pro Glu Leu lle lle Cys Leu Glu Ala Arg Lys Glu Pro Trp Asn

Val Asn Thr Glu Lys Thr Ala Lys His Ser Val Ala Thr Arg Phe Arg His Val Gly Gln Ala Gly Leu Lys Leu Leu Thr Ser Gly Asp Pro Pro Ala Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Thr Gly His His Cys Gln Pro Ile Cys Val Phe <210> 4244 <211> 251 <212> PRT <213> Homo sapiens <400> 4244 Met Ser Gly Ser Asn Pro Lys Ala Ala Ala Ala Ala Ser Ala Ala Gly Pro Gly Gly Leu Val Ala Gly Lys Glu Glu Lys Lys Lys Ala Gly Gly Gly Val Leu Asn Arg Leu Lys Ala Arg Arg Gln Ala Pro His His Ala Ala Asp Asp Gly Val Gly Ala Ala Val Thr Glu Gln Glu Leu Leu Ala Leu Asp Thr Ile Arg Pro Glu His Val Leu Arg Leu Ser Trp Val Thr Glu Asn Tyr Leu Cys Lys Pro Glu Asp Asn Ile Tyr Ser Ile Asp Phe Thr Arg Phe Lys Ile Arg Asp Leu Glu Thr Gly Thr Val Leu Phe Glu lle Ala Lys Pro Cys Val Ser Asp Glu Glu Glu Glu Glu Glu Gly Gly Gly Asp Val Asp lle Ser Ala Gly Arg Phe Val Arg Tyr Gln Phe

Thr Pro Ala Phe Leu Arg Leu Arg Thr Val Gly Ala Thr Val Glu Phe 150 155 Thr Val Gly Asp Lys Pro Val Ser Asn Phe Arg Met Ile Glu Arg His 165 170 Tyr Phe Arg Glu His Leu Leu Lys Asn Phe Asp Phe Asp Phe Gly Phe 180 185 Cys Ile Pro Ser Ser Arg Asn Thr Cys Glu His Ile Tyr Glu Phe Pro 200 205 Gln Leu Ser Glu Asp Val Ile Arg Leu Met Ile Glu Asn Pro Tyr Glu 210 215 220 Thr Arg Ser Asp Ser Phe Tyr Phe Val Asp Asn Lys Leu Ile Met His 230 235 240 Asn Lys Ala Asp Tyr Ala Tyr Asn Gly Gly Gln 245 250

<210> 4245

<211> 139

<212> PRT

<213> Homo sapiens

<400> 4245

Met Glu Phe Ala Val Phe Cys Leu Arg Arg Arg Met Gly Arg Gln
1 5 10 15

Val Ser Cys Pro Val Gly Leu Gly Val Ile Val Gly Val Thr Leu His
20 25 30

Leu Asn Leu Ser Ala Leu Pro Ser Ser Ser Ser Ala Ser Ala Trp Ser 35 40 45

Glu Thr Leu Ser Leu Trp Lys Val Thr Pro Gly Arg 11e His Leu Leu 50 55 60

Ser Cys Phe His His Gly Ile Leu Ala Cys Ala Gly Val Ser Pro Ser
65 70 75 80

Ser Ser Ser Cys Ala Leu Arg lle His Cys Cys Trp Tyr Ala Leu Ser 85 90 95

Ser Ala Leu Glu Leu Ala Gln Val Pro Leu Asp Ile His Thr Thr Asn 100 105 110 Ser Leu Ala Leu Gln Arg Trp Thr Arg Cys Leu Phe Asn Ser Leu Tyr

115

120

125

Cys His Phe His Pro Ser Glu Ala Phe Cys Ser

135

<210> 4246

130

<211> 127

<212> PRT

<213> Homo sapiens

<400> 4246

Met Asp Lys Lys Ile Ser Ile Leu Lys Asp His Gly Tyr Ile Glu Asn
1 5 10 15

Leu Thr Phe Gly Trp Asp Gly Pro Ser Trp Arg Leu Leu Thr Ala Leu
20 25 30

Lys Leu Cys Leu Glu Ala Glu Lys Phe Thr Cys Trp Lys Lys Val $35 \hspace{1.5cm} 40 \hspace{1.5cm} 45$

Leu Leu Gly Glu Val Ile Ser Asp Thr Asn Glu Lys Thr Ser Leu Asp 50 55 60

11e Ala Gln Lys 11e Cys Tyr Tyr Phe 11e Glu Glu Thr Asn Ala Val65707580

Leu Gln Lys Val Ser His Met Lys Asp Glu Lys Glu Ala Leu lle Asn 85 90 95

Gln Leu Thr Leu Val Glu Ser Leu Trp Thr Glu Glu Leu Lys 11e Leu 100 105 110

Arg Ala Ser Ala Glu Thr Leu His Ser Leu Gln Thr Ala Phe Thr 115 120 125

<210> 4247

<211> 282

<212> PRT

<213> Homo sapiens

<400> 4247

Met	Arg	Gln	Leu	Leu	Ser	Gln	Pro	Arg	Ser	Lys	Thr	Met	Cys	Leu	Lys
1				5					10					15	
Cys	Лѕр	Leu	Gln	Glu	Arg	Leu	Leu	Cys	Pro	Ser	Leu	Leu	Ala	G1y	Thr
			20					25					30		
Ala	Asp	Gly	Ser	Leu	Arg	Met	Asp	Asp	Pro	Lys	Gly	Asp	Phe	11e	Thr
		35					40					45			
Leu	Tyr	Gln	Met	Ala	Ser	Gln	Ser	Ser	Ala	Ser	His	Tyr	Lys	Leu	Gln
	50					55					60				
Val	He	Lys	Ala	Leu	Lys	Ser	Ser	Gly	Leu	Cys	Glu	Ser	Leu	Thr	Tyr
65					70					75					80
Gly	Leu	Pro	Phe	lle	Leu	Arg	Pro	Thr	Ser	Cys	Trp	Gln	Leu	Asp	Trp
				85					90					95	
Asp	Glu	Leu	Glu	Thr	Asn	Gln	Gln	His	Phe	His	Ala	Leu	Cys	His	Ser
			100					105					110		
Leu	Leu		Arg	Glu	Trp	Leu		Leu	Ala	Lys	Gly		Pro	Pro	Gly
		115					120					125			
Pro		His	Ser	Gln	Arg		Pro	Ala	Ser	Thr		Tyr	Val	He	Met
	130		_			135			_		140				
	Ser	His	Ser	Leu	Thr	Leu	Leu	Val	Lys		Val	Ala	Thr	Arg	
145		,	n	C	150	DI	ь	,		155	61		D		160
Leu	Met	Leu	Pro		Thr	Phe	Pro	Leu		Pro	Glu	Asp	Pro		Asp
A	C	1	1	165	Val	C1	Con	Mat	170	1.00	Cara	Lau	C1	175	C1
ASP	261.	Leu		ASII	Val	GIU	Ser.		Leu	ASP	261.	Leu		Leu	610
Pro	The	Tyr	180 Asp	Pro	Leu	Hic	Va 1	185°	Sor	Hi c	Lou	Tyr	190 Sor	Hie	Lou
110	1 111	195	лэн	110	Leu	1113	200	Om		1115	Leu	205	561	111.5	Leu
Ser	Ser		Tvr	Ala	Lys	Pro		G1v	⊬ Arø	Leu	His		His	Trn	G1u
	210	1.0			1370	215	01	 ,	6	200	220				
Ser		Ala	Pro	Arg	Lys		Glv	Gln	Leu	Gln		Asn	Arg	Ala	Arg
225					230		•			235			Ü		240
Ala	Thr	Val	Ala	Pro	Leu	Pro	Met	Thr	Pro	Val	Pro	Gly	Arg	Ala	Ser
				245					250					255	
Lys	Met	Pro	Ala	Ala	Ser	Lys	Ser	Ser	Ser	Asp	Ala	Phe	Phe	Leu	Pro
			260					265					270		
Ser	Glu	Trp	Glu	Lys	Asp	Pro	Ser	Arg	Pro						
		275					280								

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<211> 391
<212> PRT
<213> Homo sapiens
<400> 4248
Met Gly Leu Tyr Ala Ala Ala Ala Gly Val Leu Ala Gly Val Glu Ser
 1
Arg Gln Gly Ser Ile Lys Gly Leu Val Tyr Ser Ser Asn Phe Gln Asn
                                 25
Val Lys Gln Leu Tyr Ala Leu Val Cys Glu Thr Gln Arg Tyr Ser Ala
                             40
                                                 45
Val Leu Asp Ala Val Ile Ala Ser Ala Gly Leu Leu Arg Ala Glu Lys
     50
                                             60
                         55
Lys Leu Arg Pro His Leu Ala Lys Val His Arg Gly Val Ser Arg Asn
                     70
                                          75
Glu Asp Leu Leu Glu Val Gly Ser Arg Pro Gly Pro Ala Ser Gln Leu
                                     90
Pro Arg Phe Val Arg Val Asn Thr Leu Lys Thr Cys Ser Asp Asp Val
            100
                                105
Val Asp Tyr Phe Lys Arg Gln Gly Phe Ser Tyr Gln Gly Arg Ala Ser
                           120
                                                125
Ser Leu Asp Asp Leu Arg Ala Leu Lys Gly Lys His Phe Leu Leu Asp
    130
                        135
                                             140
Pro Leu Met Pro Glu Leu Leu Val Phe Pro Ala Gln Thr Asp Leu His
                    150
                                        155
Glu His Pro Leu Tyr Arg Ala Gly His Leu Ile Leu Gln Asp Arg Ala
                165
                                    170
                                                         175
Ser Cys Leu Pro Ala Met Leu Leu Asp Pro Pro Pro Gly Ser His Val
            180
                                185
                                                     190
lle Asp Ala Cys Ala Ala Pro Gly Asn Lys Thr Ser His Leu Ala Ala
                            200
                                                205
Leu Leu Lys Asn Gln Gly Lys Ile Phe Ala Phe Asp Leu Asp Ala Lys
```

<210> 4248

Arg Leu Ala Ser Met Ala Thr Leu Leu Ala Arg Ala Gly Val Ser Cys 230 235 Cys Glu Leu Ala Glu Glu Asp Phe Leu Ala Val Ser Pro Ser Asp Pro 250 255 Arg Tyr His Glu Val His Tyr Ile Leu Leu Asp Pro Ser Cys Ser Gly 260 265 270 Ser Gly Met Pro Ser Arg Gln Leu Glu Glu Pro Gly Ala Gly Thr Pro 280 Ser Pro Val Arg Leu His Ala Leu Ala Gly Phe Gln Gln Arg Ala Leu 290 295 300 Cys His Ala Leu Thr Phe Pro Ser Leu Gln Arg Leu Val Tyr Ser Thr 310 315 Cys Ser Leu Cys Gln Glu Glu Asn Glu Asp Val Val Arg Asp Ala Leu 325 330 Gln Gln Asn Pro Gly Ala Phe Arg Leu Ala Pro Ala Leu Pro Ala Trp 340 345 350 Pro His Arg Gly Leu Ser Thr Phe Pro Gly Ala Glu His Cys Leu Arg 360 365 Ala Ser Pro Glu Thr Thr Leu Ser Ser Gly Phe Phe Val Ala Val Ile 370 375 380 Glu Arg Ala Glu Val Pro Arg 385 390

<210> 4249

<211> 507

<212> PRT

<213> Homo sapiens

<400> 4249

Met Glu Phe Leu Leu Gly Asn Pro Phe Ser Thr Pro Val Gly Gln Cys

1 5 10 15

Leu Glu Lys Ala Thr Asp Gly Ser Leu Gln Ser Glu Asp Trp Thr Leu
20 25 30

Asn Met Glu Ile Cys Asp Ile Ile Asn Glu Thr Glu Glu Gly Pro Lys

35 40 45

Asp	Ala 50	He	Arg	Ala	Leu	Lys 55	Lys	Arg	Leu	Asn	G1 y 60	Asn	Arg	Asn	Tyr
Arg		Val	Met	Leu	Ala	Leu	Thr	Val	Leu	Glu		Cys	Val	Lys	Asn
65					70					75					80
Cys	Gly	His	Arg	Phe	His	He	Leu	Val	Ala	Asn	Arg	Asp	Phe	He	Asp
				85					90					95	
Ser	Val	Leu	Val	Lys	11e	He	Ser	Pro	Lys	Asn	Asn	Pro	Pro	Thr	Пe
			100					105					110		
Val	Gln	Asp	Lys	Val	Leu	Ala	Leu	He	Gln	Ala	Trp	Ala	Asp	Ala	Phe
		115					120					125			
Arg	Ser	Ser	Pro	Asp	Leu	Thr	Gly	Val	Val	His	He	Tyr	Glu	Glu	Leu
	130					135					140				
Lys	Arg	Lys	Gly	Val	Glu	Phe	Pro	Met	Ala	Asp	Leu	Asp	Ala	Leu	Ser
145					150					155					160
Pro	11e	His	Thr	Pro	Gln	Arg	Ser	Val	Pro	Glu	Val	Asp	Pro	Ala	Ala
				165					170					175	
Thr	Met	Pro	Arg	Ser	Gln	Ser	Gln	Gln	Arg	Thr	Ser	Ala	Gly	Ser	Tyr
			180					185					190		
Ser	Ser	Pro	Pro	Pro	Ala	Pro	Tyr	Ser	Ala	Pro	Gln	Ala	Pro	Ala	Leu
		195					200					205			
Ser	Va]	Thr	Gly	Pro	He	Thr	Ala	Asn	Ser	Glu	Gln	He	Ala	Arg	Leu
	210					215					220				
Arg	Ser	Glu	Leu	Asp	Va]	Val	Arg	G] y	Asn	Thr	Lys	Val	Met	Ser	Glu
225					230					235					240
Met	Leu	Thr	Glu	Met	Val	Pro	Gly	Gln	Glu	Asp	Ser	Ser	Asp	Leu	Glu
				245					250					255	
Leu	Leu	Gln	Glu	Leu	Asn	Arg	Thr	Cys	Arg	Ala	Met	Gln	Gln	Arg	He
			260					265					270		
Val	Glu	Leu	He	Ser	Arg	Val	Ser	Asn	Glu	Glu	Val	Thr	Glu	Glu	Leu
		275					280					285			
Leu		Val	Asn	Asp	Asp	Leu	Asn	Asn	Va]	Phe	Leu	Arg	Tyr	Glu	Arg
	290					295					300				
	Glu	Arg	Tyr	Arg		Gly	Arg	Ser	Va]		Asn	Ala	Ser	Asn	
305					310					315					320
Val	Leu	Asn	Glu		Thr	Glu	Asp	Asn		He	Asp	Leu	Gly		G1 y
				325					330					335	

Ser Pro Ala Val Val Ser Pro Met Val Gly Asn Thr Ala Pro Pro Ser 345 Ser Leu Ser Ser Gln Leu Ala Gly Leu Asp Leu Gly Thr Glu Ser Val 355 360 Ser Gly Thr Leu Ser Ser Leu Gln Gln Cys Asn Pro Arg Asp Gly Phe 375 380 Asp Met Phe Ala Gln Thr Arg Gly Asn Ser Leu Ala Glu Gln Arg Lys 390 395 Thr Val Thr Tyr Glu Asp Pro Gln Ala Val Gly Gly Leu Ala Ser Ala 405 410 415 Leu Asp Asn Arg Lys Gln Ser Ser Glu Gly 11e Pro Val Ala Gln Pro 420 425 Ser Val Met Asp Asp Ile Glu Val Trp Leu Arg Thr Asp Leu Lys Gly 435 440 445 Asp Asp Leu Glu Glu Gly Val Thr Ser Glu Glu Phe Asp Lys Phe Leu 455 460 Glu Glu Arg Ala Lys Ala Ala Glu Met Val Pro Asp Leu Pro Ser Pro 470 475 480 Pro Met Glu Ala Pro Ala Pro Ala Ser Asn Pro Ser Gly Arg Lys Lys 485 490 495 Pro Glu Arg Ser Glu Asp Ala Leu Phe Ala Leu

<210> 4250

<211> 150

<212> PRT

<213> Homo sapiens

500

<400> 4250

Met Glu Val Ser Tyr Thr Pro Leu Thr Val Phe Ser Ser Ser Val Val

I 5 10 15

Thr Lys Pro Tyr Pro Ser Leu Ser Ile Arg Ser Thr Ile Phe Pro Ser

20 25 30

505

Leu Ser Ser Leu Ser Ser Gly Val Ser Ser Ser Lys Phe Leu Glu Ser

35 40 Phe Leu Pro Arg Lys Ala Ser Trp Ser Tyr Trp Lys Leu Trp Leu Ser 55 Ser Gly Gly Arg Ser Pro Ser Ser Glu Ser Gly Arg Thr Thr Arg Ser 75 70 Leu Arg Thr Val Gly Leu Ala Arg Arg Thr Arg Gly Ala Ser Thr Ser 85 90 Ala Ser Ser Ser Pro Arg Ala Asn Pro Gly Gly His Arg Ala Pro Ser 100 105 110 Ser Arg Gly Glu Gly Arg Glu Gly Asp Ala Glu Arg Ala Thr Thr 125 115 120 Ala Ala Ala Arg Glu Trp Gly Leu Gly Ala Arg Arg Pro Ser Phe Met 135 140 Leu Cys Ile Phe Tyr Lys 150 145

<210> 4251

<211> 716

<212> PRT

<213> Homo sapiens

<400> 4251

 Met Leu Lys Asp
 Tyr Leu Val Val Ala Gln Glu Ala Leu Ser Ala Gln

 1
 5
 10
 15

 Lys Glu Ile Tyr Gln Val Lys Gln Gln Arg Leu Glu Leu Ala Gln Gln
 20
 25
 30

 Glu Tyr Gln Gln Leu His Ala Val Trp Glu His Lys Leu Gly Ser Gln
 35
 40
 45

 Val Ser Leu Val Ser Gly Ser Ser Ser Ser Ser Lys Tyr Asp Pro Glu

Val Ser Leu Val Ser Gly Ser Ser Ser Ser Lys Tyr Asp Pro Glu 50 55 60

Ile Leu Lys Ala Glu Ile Ala Thr Ala Lys Ser Arg Val Asn Lys Leu 65 70 75 80

Lys Arg Glu Met Val His Leu Gln His Glu Leu Gln Phe Lys Glu Arg 85 90 95

Gly Phe Gln Thr Leu Lys Lys Ile Asp Lys Lys Met Ser Asp Ala Gln

			100					105					110		
Gly	Ser	Tyr	Lys	Leu	Asp	Glu	Ala	Gln	Ala	Val	Leu	Arg	Glu	Thr	Lys
		115					120					125			
Ala	lle	Lys	Lys	Ala	He	Thr	Cys	Gly	Glu	Lys	Glu	Lys	Gln	Asp	Leu
	130					135					140				
Пe	Lys	Ser	Leu	Ala	Met	Leu	Lys	Asp	Gly	Phe	Arg	Thr	Asp	Arg	Gly
145					150					155					160
Ser	His	Ser	Asp	Leu	Trp	Ser	Ser	Ser	Ser	Ser	Leu	Glu	Ser	Ser	Ser
				165					170					175	
Phe	Pro	Leu	Pro	Lys	Gln	Tyr	Leu	Asp	Val	Ser	Ser	Gln	Thr	Asp	He
			180					185	Ĺ				190		
Ser	Gly	Ser	Phe	Gly	lle	Asn	Ser	Asn	Asn	Gln	Leu	Ala	Glu	Lys	Va]
		195					200					205			
Arg	Leu	Arg	Leu	Arg	Tyr	Glu	Glu	Ala	Lys	Arg	Arg	lle	Ala	Asn	Leu
	210					215					220				
Lys	Ile	Gln	Leu	Ala	Lys	Leu	Asp	Ser	Glu	Ala	Trp	Pro	G1 y	Val	Leu
225					230					235					240
Asp	Ser	Glu	Arg		Arg	Leu	lle	Leu	lle	Asn	Glu	Lys	Glu	Glu	Leu
				245					250					255	
Leu	Lys	Glu		Arg	Phe	He	Ser		Arg	Lys	Trp	Thr	Gln	Gly	Glu
			260					265					270		
Val	Glu	Gln	Leu	Glu	Met	Ala		Lys	Arg	Leu	Glu		Asp	Leu	Gln
		275					280					285			
Ala		Arg	Asp	Thr	G1n		Lys	Ala	Leu	Thr		Arg	Leu	Lys	Leu
	290					295					300				
	Ser	Lys	Arg	Asn			Val	Arg	Glu		Glu	Glu	Ala	Thr	
305	., 1		aru.		310					315					320
GIn	Val	Ala	Thr		His	Ser	GIn	Leu		Ser	Leu	Ser	Ser		Met
C 1	C	,	C	325	C1	C	C	Б	330	0	,	m		335	
61n	Ser	Leu		Ser	GIy	Ser	5er		Gly	Ser	Leu	Thr		Ser	Arg
C 1	C		340	A 3	C	c		345	C	C	mi		350		
61 y	Ser	Leu	vai	Ala	Ser	Ser		Asp	Ser	Ser	Thr		Ala	Ser	Phe
TL	Λ	355	т	т	Α.	ъ.	360	01	C1			365	63		6.7
H		Leu	ıyr	ıyr	Asp		rne	61 u	61n	Leu		261.	61u	Leu	61n
2	370	Val	C1	Dl	1	375		Cl	C I	A 7	380	C1	DI.	4	D
16, [1 VS	val	11111	THE	LEU	1.011	1.011	1 - 1 1 1	4 - 1 37	0.10	Lhr	6 - 1 37	Pho	A TOO	1/100

385					390					395					400
Ser	Gly	Cys	He	Thr	Thr	lle	His	Glu	Asp	Glu	Val	Ala	Lys	Thr	Gln
				405					410					415	
Lys	Ala	Glu	Gly	Gly	Gly	Arg	Leu	Gln	Ala	Leu	Arg	Ser	Leu	Ser	Gly
			420					425					430		
Thr	Pro	Lys	Ser	Met	Thr	Ser	Leu	Ser	Pro	Arg	Ser	Ser	Leu	Ser	Ser
		435					440					445			
Pro	Ser	Pro	Pro	Cys	Ser	Pro	Leu	Met	Ala	Asp	Pro	Leu	Leu	Ala	Gly
	450					455					460				
Asp	Ala	Phe	Leu	Asn	Ser	Leu	Glu	Phe	Glu	Asp	Pro	Glu	Leu	Ser	Ala
465					470					475					480
Thr	Leu	Cys	Glu	Leu	Ser	Leu	Gly	Asn	Ser	Ala	Gln	Glu	Arg	Tyr	Arg
				485					490					495	
Leu	Glu	Glu	Pro	Gly	Thr	Glu	Gly	Lys	Gln	Leu	Gly	Gln	Ala	Va]	Ser
			500					505					510		
Thr	Ala	Gln	Gly	Cys	Gly	Leu	Lys	Val	Ala	Cys	Val	Ser	Ala	Ala	Val
		515					520					525			
Ser	Asp	Glu	Ser	Val	Ala	Gly	Asp	Ser	Gly	Va]	Tyr	Glu	Ala	Ser	Val
	530					535					540				
Gln	Arg	Leu	Gly	Ala	Ser	Glu	Ala	Ala	Ala	Phe	Asp	Ser	Asp	Glu	Ser
545					550					555					560
Glu	Ala	Val	G1y	Ala	Thr	Arg	Пe	Gln	11e	Ala	Leu	Lys	Tyr	Asp	Glu
				565					570					575	
Lys	Asn	Lys	Gln	Phe	Ala	He	Leu	He	Пе	Gln	Leu	Ser	Asn	Leu	Ser
			580					585					590		
Ala	Leu	Leu	Gln	Gln	Gln	Asp	Gln	Lys	Val	Asn	He	Arg	Val	Ala	Val
		595					600					605			
Leu	Pro	Cys	Ser	G]u	Ser	Thr	Thr	Cys	Leu	Phe	Arg	Thr	Arg	Pro	Leu
	610					615					620				
Asp	Ala	Ser	Asp	Thr	Leu	Val	Phe	Asn	Glu	Val	Phe	Trp	Val	Ser	Met
625					630					635					640
Ser	Tyr	Pro	Ala	Leu	His	G1n	Lys	Thr	Leu	Arg	Val	Asp	Val	Cys	Thr
				645					650					655	
Thr	Asp	Arg	Ser	His	Leu	Glu	Glu	Cys	Leu	Gly	Gly	Ala	Gln	He	Ser
			660					665					670		
Leu	Λla	Glu	Val	Cys	Arg	Ser	Gly	Glu	Arg	Ser	Thr	Arg	Trp	Tyr	Asn

Leu Leu Ser Tyr Lys Tyr Leu Lys Lys Gln Ser Arg Met Phe Ser Pro Arg Lys Pro His Leu Ile Trp Met Gly Thr Gln His <210> 4252 <211> 286 <212> PRT <213> Homo sapiens <400> 4252 Met Glu Asp Arg His Val Ser Leu Pro Ser Phe Asn Gln Leu Phe Gly Leu Ser Asp Pro Val Asn Arg Ala Tyr Phe Ala Val Phe Asp Gly His Gly Gly Val Asp Ala Ala Arg Tyr Ala Ala Val His Val His Thr Asn Ala Ala Arg Gln Pro Glu Leu Pro Thr Asp Pro Glu Gly Ala Leu Arg Glu Ala Phe Arg Arg Thr Asp Gln Met Phe Leu Arg Lys Ala Lys Arg Glu Arg Leu Gln Ser Gly Thr Thr Gly Val Cys Ala Leu Ile Ala Gly Ala Thr Leu His Val Ala Trp Leu Gly Asp Ser Gln Val Ile Leu Val Gln Gln Gly Gln Val Val Lys Leu Met Glu Pro His Arg Pro Glu Arg Gln Asp Glu Lys Ala Arg Ile Glu Ala Leu Gly Gly Phe Val Ser His Met Asp Cys Trp Arg Val Asn Gly Thr Leu Ala Val Ser Arg Ala Ile

Gly Asp Val Phe Gln Lys Pro Tyr Val Ser Gly Glu Ala Asp Ala Ala

Ser Arg Ala Leu Thr Gly Ser Glu Asp Tyr Leu Leu Leu Ala Cys Asp

180 185 190 Gly Phe Phe Asp Val Val Pro His Gln Glu Val Val Gly Leu Val Gln 200 205 Ser His Leu Thr Arg Gln Gln Gly Ser Gly Leu Arg Val Ala Glu Glu 210 215 220 Leu Val Ala Ala Ala Arg Glu Arg Gly Ser His Asp Asn Ile Thr Val 230 235 240 Met Val Val Phe Leu Arg Asp Pro Gln Glu Leu Arg Glu Gly Gly Asn 245 250 Gln Gly Glu Gly Asp Pro Gln Ala Glu Gly Arg Arg Gln Asp Leu Pro 260 265 270 Ser Ser Leu Pro Glu Pro Glu Thr Gln Ala Pro Pro Arg Ser 275 280

<210> 4253

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4253

Met Pro His Pro Val Pro Met Ile Thr Pro Ser Pro Val Pro Phe Thr
1 5 10 15

Ala Lys Leu Leu Glu Ser Ser Phe Cys Thr Ser Cys Leu Leu Phe Leu 20 25 30

Cys Ser His Pro Cys Ser Ser Pro Phe Gln Ala Gly Ser His Pro Asp 35 40 45

Cys Leu Thr Glu Thr Val Leu Cys Arg Ser Pro Ala Lys Ser Leu Leu 50 55 60

Pro Pro Pro Ala Ala Ser Phe Cys Pro His Pro Leu Gly Pro Val Ser 65 70 75 80

Ser lle Arg Gly Asn Arg Gln His Leu Leu Ser Cys Ser Pro Val Met 85 90 95

Ala Gly His Val Val Leu Gly Arg Leu Ala Trp 100 105

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<211> 229
<212> PRT
<213> Homo sapiens
<400> 4254
Met Gly Pro Glu Gln Ile Leu Pro Thr Gly Ser Glu His Val Leu Pro
 1
                  5
Thr Gly Ser Glu Gln Ile Leu Pro Thr Gly Ser Glu Gln Ile Leu Pro
             20
                                 25
Met Gly Ser Glu Gln Ile Leu Pro Met Pro Ser Glu Gln Val Leu Pro
                             40
Met Gly Ser Glu His Val Leu Pro Thr Gly Ser Glu Gln Val Leu Pro
     50
                         55
                                              60
Thr Gly Ser Glu Gln Val Leu Pro Thr Gly Ser Glu His Val Leu Pro
                                         75
Thr Gly Ser Glu Gln Val Leu Leu Pro Thr Gly Ser Asp His Val Leu
                                     90
Pro Thr Gly Ser Glu His Val Leu Ser Thr Gly Ser Glu Gln Val Leu
            100
                                105
                                                     110
Pro Met Gly Ser Glu His Val Leu Pro Thr Gly Ser Glu Gln Val Leu
                            120
Pro Thr Gly Ser Met Ser Ser Pro Arg Gly Leu Ser Met Ser Ser Pro
    130
                        135
                                             140
Trp Val Leu Ser Lys Ser Ser Pro Trp Gly Leu Ser Lys Ser Ser Pro
                    150
                                        155
                                                             160
Arg Gly Leu Ser Lys Ser Ser Pro Trp Gly Leu Ser Lys Ser Phe Leu
                                    170
Cys Arg Leu Ser Thr Ser Ser Pro Ser Cys Asp Arg Val Ser Leu Leu
            180
                                185
                                                     190
Gln Val Glu Asp Val Ala Arg Met His Leu Glu Gly Thr Pro Ala Ser
                            200
                                                205
Pro Glu Arg Pro Leu Leu Val Ala Trp Gly Val Ala Gly Trp Ser Gly
   210
                        215
                                            220
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<210> 4254

Val Leu Gly Ala Leu

225

<210> 4255

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4255

Met Gly Gln Asp Arg Ala Gly Ile Ala Val Thr Gly Trp Trp Lys Ile

1 5 10 15

Leu Gln Lys His Leu Phe Cys Leu Glu Gly Pro Asn Ser Phe Lys Asn

20 25 30

Met Cys Leu Ala Lys Ala His 11e Ser Gln Asn Leu Cys Lys Tyr Leu 35 40 45

Glu Ala Phe Leu Leu Phe Tyr Val Asp Val Glu Ala Lys Glu Arg Lys
50 55 60

Met Trp Pro His Val Cys Phe Gln Leu Leu Ile Ser Lys Tyr Leu Ala 65 70 75 80

Phe Ser Gly Met Arg Thr Asn Gln IIe Thr Phe Val Arg Tyr Ala Val 85 90 95

Pro Leu Asp Cys Ser Leu Ser Phe Gly 100 105

<210> 4256

<211> 110

<212> PRT

<213> Homo sapiens

<400> 4256

Met Leu Phe Arg Ser Leu Pro Gly Asn Phe Asp Met Val His Val Phe
1 5 10 15

Thr Gln Asn Pro Ile Lys Gln Gly Ser Leu Ala Val Gln Phe Pro Pro 20 25 30

Val Leu Leu Ser Gly Trp 11e Gly Glu Gly Gly His Pro Ser Gln Leu

35 40 45 Ser Ala Ser Thr Gln Pro Leu Trp Ala Met Trp Trp Gln Lys Gln Lys 55 60 Ala Arg Gln Ala Pro Trp Glu Pro Gly Thr Leu Asp His Glu Ala Leu 65 70 75 80 His Leu Ser Glu Leu Gly Phe Pro Ser Phe Lys Lys Ile Phe Arg Arg 90 Gly Val Val Ala His Thr Cys Asn Pro Ser Thr Leu Gly Gly 105 110

<210> 4257

<211> 278

<212> PRT

<213> Homo sapiens

<400> 4257

Met Thr Asp Leu Asn Lys His Ile Lys Gln Ala Gln Thr Gln Arg Lys

1 5 10 15

Gln Leu Leu Glu Glu Ser Arg Glu Leu His Arg Glu Lys Leu Leu Val 20 25 30

Gln Ala Glu Asn Arg Phe Phe Leu Glu Tyr Leu Thr Asn Lys Thr Glu 35 40 45

Glu Tyr Thr Glu Gln Pro Glu Lys Val Trp Asn Ser Tyr Leu Gln Lys 50 55 60

Ser Gly Glu 11e Glu Arg Arg Gln Glu Ser Ala Ser Arg Tyr Ala 65 70 75 80

Glu Gln lle Ser Val Leu Lys Thr Ala Leu Leu Gln Lys Glu Asn lle 85 90 95

Gln Ser Ser Leu Lys Arg Lys Leu Gln Ala Met Arg Asp Ile Ala Ile 100 105 110

Leu Lys Glu Lys Glu Glu Lys Glu 11e Gln Thr Leu Gln Glu Glu Thr
115 120 125

Lys Lys Val Gl
n Ala Glu Thr Ala Ser Lys Thr Arg Glu Val Gl
n Ala 130 $$135\ \ \, 140\ \ \,$

Gln Leu Leu Gln Glu Lys Arg Leu Leu Glu Lys Gln Leu Ser Glu Pro

145					150					155					160
Asp	Arg	Arg	Leu	Leu	Gly	Lys	Arg	Lys	Arg	Arg	Glu	Leu	Asn	Met	Lys
				165					170					175	
Ala	Gln	Ala	Leu	Lys	Leu	Ala	Ala	Lys	Arg	Phe	He	Phe	Glu	Tyr	Ser
			180					185					190		
Cys	Gly	11e	Asn	Arg	Glu	Asn	Gln	Gln	Phe	Lys	Lys	Glu	Leu	Leu	Gln
		195					200					205			
Leu	lle	Glu	Gln	Ala	Gln	Lys	Leu	Thr	Ala	Thr	Gln	Ser	His	Leu	Glu
	210					215					220				
Asn	Arg	Lys	Gln	Gln	Leu	Gln	Gln	Glu	Gln	Trp	Tyr	Leu	Glu	Ser	Leu
225					230					235					240
He	GIn	Ala	Arg	Gln	Arg	Leu	Gln	Gly	Ser	His	Asn	Gln	Cys	Leu	Asn
				245					250					255	
Arg	Gln	Asp	Val	Pro	Lys	Thr	Thr	Pro	Ser	Leu	Pro	Gln	Gly	Thr	Lys
			260					265					270		
Ser	Arg	lle	Asn	Pro	Lys										
		275													

<210> 4258

<211> 327

<212> PRT

<213> Homo sapiens

<400> 4258

Lys Glu Lys Pro Gln His Arg Lys Ile Arg Glu Ala Pro Tyr Gly Ser

				85					90					95	
Phe	Asp	Ser	Gln	Val	Tyr	Leu	Asp	Ala	Thr	Gly	Val	Pro	Gln	Gly	Val
			100					105					110		
Pro	His	Lys	Phe	Lys	Ala	Gln	Asp	G1n	He	Ala	Ala	Gly	Phe	Glu	Ser
		115					120					125			
Ile	Phe	Trp	Trp	Va]	Thr	lle	Ser	Lys	Asn	He	Asp	Trp	lle	Asn	Tyr
	130					135					140				
He	Tyr	Tyr	Asn	Gln	Gln	Arg	Phe	Ile	Asn	Tyr	Thr	Arg	Asp	Ala	Val
145					150					155					160
Lys	Gly	Ile	Ala	Glu	Gln	Leu	Gly	Pro	Thr	Ser	Gln	Met	Ala	Trp	Glu
				165					170					175	
Asn	Arg	Met	Ala	Leu	Asp	Met	Ile	Leu	Ala	Lys	Lys	Gly	Gly	Val	Cys
			180					185					190		
Val	Met	He	Lys	Thr	Gln	Cys	Cys	Thr	Phe	He	Pro	Asn	Asn	Thr	Ala
		195					200					205			
Pro	Ser	Gly	Ser	lle	Thr	Arg	Ala	Leu	Gln	Gly	Leu	Thr	Ala	Leu	Ser
	210					215					220				
Asn	Glu	Leu	Ala	Lys	Asn	Ser	Gly	Val	Asn	Asp	Pro	Phe	Ser	Gly	Trp
225					230					235					240
Leu	Glu	Arg	Trp	Phe	Gly	Lys	Trp	Lys	G1 y	11e	He	Ala	Ser	Пе	Leu
				245					250					255	
Thr	Ser	Leu	Ala	Ala	Val	He	Gly	Va]	Val	He	Leu	Phe	Gly	Cys	Cys
			260					265					270		
Val	Thr	Pro	Cys	Пе	Arg	Gly	Leu	Val	Gln	Arg	Leu	Пе	Glu	Thr	Val
		275					280					285			
Leu		Lys	Thr	Ser	Leu	Ser	Ser	Pro	Pro	Pro	Tyr	Ser	Asp	Lys	Leu
	290					295					300				
	Leu	Leu	Glu	Asp	Gln	Val	Glu	Gln	Gln		Gln	Asp	Leu	Leu	Lys
305					310					315					320

Arg Phe Glu Glu Glu Gly Pro \$325\$

<210> 4259 <211> 118

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<212> PRT
<213> Homo sapiens
<400> 4259
Met Phe Leu Pro Arg Glu Val Leu Leu Arg Leu Trp Val Gln Ile Ala
                                      10
lle Leu Gly Cys Arg Tyr lle Pro Gly Asp Ser Val Pro Ser Leu Met
                                 25
             20
Val Ala Gln His Arg Pro Ala Arg Val Ala Ser Ala Ser Trp Ser Arg
                             40
                                                  45
         35
Ala Ala Arg Gly Gln Ala Trp Trp Leu Ala Pro Met Ile Pro Thr Leu
                         55
Trp Glu Thr Glu Val Gly Arg Ser Leu Glu Pro Arg Ser Ser Arg Pro
                     70
                                          75
Thr Trp Ala Ala Trp Gln Lys Pro Ser Leu Gln Lys Ile Gln Asn Ser
                 85
                                      90
Pro Gly His Gly Gly Ala Phe Leu Trp Ser Gln Pro Lys Leu Ala Gly
            100
                                105
                                                     110
His Gly Gly Val Cys Leu
        115
<210> 4260
<211> 197
<212> PRT
<213> Homo sapiens
<400> 4260
Met Gly Gly Ala Gly Gly Gln His Gly Thr Asp Leu His Pro Ala Leu
```

Pro Arg Leu Val Pro Pro Thr Cys Cys Val Met Val Trp Leu Pro Arg 70 75 Pro Ser Leu Gly Trp Val Trp Gly Trp Ser Gly Leu Ala His Ala Ser 90 His Leu Cys Leu His Leu Cys Cys His Pro Ala Pro Pro Ser Ser Ser 105 110 Ser Pro Ala Ser Ser Leu Cys Ala Ser Val Ser Cys Arg Lys Lys 120 Trp Val Glu Pro Glu Arg Arg Leu Ser Glu Glu Gly Arg Gly Arg Ala 130 135 140 Trp Gly Gly Ser Pro Thr Pro His Pro Lys Pro Gln Gly Leu Pro Pro 150 155 Gly Ser Gly Arg Gly Arg Ser Trp Leu Cys Gly Val Val Ala Pro Leu 165 170 Leu Leu Pro Cys Phe Ser His Leu Ser Cys Pro Ser Leu Val Pro Thr 180 185 190 Ala Val His His Glu 195

<210> 4261

<211> 461

<212> PRT

<213> Homo sapiens

<400> 4261

Met Ser Arg Glu Gly Ala Gly Ala Ala Leu Val Ala Glu Val 11e Lys
1 5 10 15

Asp Arg Leu Cys Phe Ala 11e Leu Tyr Ser Arg Pro Lys Ser Ala Ser 20 25 30

Asn Val His Tyr Phe Ser lle Asp Asn Glu Leu Glu Tyr Glu Asn Phe
35 40 45

Tyr Ala Asp Phe Gly Pro Leu Asn Leu Ala Met Val Tyr Arg Tyr Cys 50 55 60

Cys Lys Ile Asn Lys Lys Leu Lys Ser Ile Thr Met Leu Arg Lys Lys
65 70 75 80

He	Val	His	Phe		G1 y	Ser	Asp	Gln		Lys	Gln	Ala	Asn		Ala
מו		V: 1	C1	85	Tr.		17. 3	7.1	90	,	0.1		mı	95	
Phe	Leu	Val		Cys	lyr	Met	Val		Tyr	Leu	Gly	Arg		Pro	Glu
0.1		er.	100					105					110		
Glu	Ala		Arg	He	Leu	He	Phe	Gly	Glu	Thr	Ser		He	Pro	Phe
		115					120					125			
Arg		Ala	Ala	Tyr	G] y		Cys	Asn	Phe	Tyr	He	Thr	Leu	Leu	Asp
-	130				_	135					140				
	Phe	His	Ala	Val		Lys	Ala	Met	Gln		Gly	Phe	Leu	Asn	Phe
145					150					155					160
Asn	Ser	Phe	Asn		Asp	Glu	Tyr	Glu	His	Tyr	Glu	Lys	Ala	Glu	Asn
				165					170					175	
Gly	Asp	Leu		Trp	He	He	Pro		Arg	Phe	He	Ala	Phe	Cys	G1 y
			180					185					190		
Pro	His		Arg	Ala	Arg	Leu	Glu	Ser	Gly	Tyr	His	Gln	His	Ser	Pro
		195					200					205			
Glu		Tyr	He	Gln	Tyr	Phe	Lys	Asn	His	Asn	Val	Thr	Thr	He	He
	210					215					220				
	Leu	Asn	Lys	Arg		Tyr	Asp	Ala	Lys		Phe	Thr	Asp	Ala	
225					230					235					240
Phe	Asp	His	His	Asp	Leu	Phe	Phe	Ala	Asp	Gly	Ser	Thr	Pro	Thr	Asp
				245					250					255	
Ala	Пе	Val		Glu	Phe	Leu	Asp	He	Cys	Glu	Asn	Ala	Glu	Gly	Ala
			260					265					270		
He	Ala	Val	His	Cys	Lys	Ala	Gly	Leu	Gly	Arg	Thr	Gly	Thr	Leu	He
		275					280					285			
Ala		Tyr	He	Met	Lys		Tyr	Arg	Met	Thr	Ala	Ala	Glu	Thr	11e
	290					295					300				
	Trp	Val	Arg	lle	Cys	Arg	Pro	Gly	Ser	Val	He	G1 y	Pro	Gln	G1n
305					310					315					320
G1n	Phe	Leu	Va]		Lys	Gln	Thr	Asn	Leu	Trp	Leu	Glu	G1 y	Asp	Tyr
				325					330					335	
Phe	Arg	Gln		Leu	Lys	Gly	G]n	Glu	Asn	Gly	Gln	His	Arg	Ala	Ala
			340					345					350		
Phe	Ser		Leu	Leu	Ser	G] y	Val	Asp	Asp	Пе	Ser	lle	Asn	Gly	Val
		355					360					365			

Glu Asn Gln Asp Gln Glu Pro Glu Pro Tyr Ser Asp Asp Glu lle Asn Gly Val Thr Gln Gly Asp Arg Leu Arg Ala Leu Lys Ser Arg Arg Gln Ser Lys Thr Asn Ala 11e Pro Leu Thr Val 11e Leu Gln Ser Ser Val Gln Ser Cys Lys Thr Ser Glu Pro Asn Ile Ser Gly Ser Ala Gly Ile Thr Lys Arg Thr Thr Arg Ser Ala Ser Arg Lys Ser Ser Val Lys Ser Leu Ser Ile Ser Arg Thr Lys Thr Val Leu Arg

<210> 4262

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4262

Met Pro Ala Val Ser Lys Gly Asp Gly Met Arg Gly Leu Ala Val Phe lle Ser Asp lle Arg Asn Cys Lys Ser Lys Glu Ala Glu lle Lys Arg lle Asn Lys Glu Leu Ala Asn lle Arg Ser Lys Phe Lys Gly Asp Lys Ala Leu Asp Gly Tyr Ser Lys Lys Lys Tyr Val Cys Lys Leu Leu Phe Ile Phe Leu Leu Gly His Asp Ile Asp Phe Gly His Met Glu Ala Val Asn Leu Leu Ser Ser Asn Lys Tyr Thr Glu Lys Gln Ile Gly Tyr Leu Phe lle Ser Val Leu Val Asn Ser Asn Ser Glu Leu lle Arg Leu lle Asn Asn Ala lle Lys Asn Asp Leu Ala Ser Arg Asn Pro Thr Phe Met

Cys Leu Ala Leu His Cys Ile Ala Asn Val Gly Ser Arg Glu Met Gly Glu Ala Phe Ala Ala Asp Ile Pro Arg Ile Leu Val Ala Gly Asp Ser Met Asp Ser Val Lys Gln Ser Ala Ala Leu Cys Leu Leu Arg Leu Tyr Lys Ala Ser Pro Asp Leu Val Pro Met Gly Glu Trp Thr Ala Arg Val Val His Leu Leu Asn Asp Gln His Met Gly Val Val Thr Ala Ala Val Ser Leu Ile Thr Cys Leu Cys Lys Lys Asn Pro Asp Asp Phe Lys Thr Cys Val Ser Leu Ala Val Ser Arg Leu Ser Arg 11e Val Ser Ser Ala Ser Thr Asp Leu Gln Asp Tyr Thr Tyr Tyr Phe Val Pro Ala Pro Trp Leu Ser Val Lys Leu Leu Arg Leu Leu Gln Cys Tyr Leu Asn Tyr His Ser Pro Val Arg Gly Phe His Ile Trp Trp Glu Pro Ser Pro Thr Ala His Ser His Asn Ser Gln Cys Val

<210> 4263

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4263

Met Val Ser Lys Ser Ala Val Asp Phe Glv Leu Glu Glu His Lys His Asn Leu Tyr Pro Lys Leu Phe Tyr Pro Phe Ala Asn Phe Leu Leu Leu Asp Leu Ser Thr Lys Ser Val Val Leu Leu Ser Leu Gln Leu Val

```
Ser Val His Ala Val Gln Leu Leu Ile Thr Ser Gly Leu Trp Ala Gly
                         55
Ser Lys Asn Leu Lys Leu IIe Met Leu Asp Ser Gly Ala Ser Val Gly
                     70
                                         75
Leu His Ile Val Tvr Phe Pro Pro Ser Pro Ser Ala Thr Ala Val Leu
                 85
                                     90
Gly Arg Asp Ser Phe Phe Pro Leu Trp Leu Val Leu Glu Asn Cys Met
                                105
                                                    110
Gly Tyr Arg
        115
<210> 4264
<211> 307
<212> PRT
<213> Homo sapiens
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Met Pro Ser Leu Leu Gly Ala Pro Pro Tyr Ser Gly Leu Gly Gly Val
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                  5
                                     10
                                                         15
Gly Asp Pro Tyr Ala Pro Leu Met Val Leu Met Cys Arg Val Cys Leu
             20
                                 25
Glu Asp Lys Pro IIe Lys Pro Leu Pro Cys Cys Lys Lys Ala Val Cys
                             40
                                                 45
Glu Glu Cys Leu Lys Val Tyr Leu Ser Ala Gln Val Gln Leu Gly Gln
     50
                         55
                                             60
Val Glu Ile Lys Cys Pro Ile Thr Glu Cys Phe Glu Phe Leu Glu Glu
                    70
                                         75
Thr Thr Val Val Tyr Asn Leu Thr His Glu Asp Ser lle Lys Tyr Lys
                 85
                                     90
Tyr Phe Leu Glu Leu Gly Arg 11e Asp Ser Ser Thr Lys Pro Cys Pro
                                105
Gln Cys Lys His Phe Thr Thr Phe Lys Lys Gly His Ile Pro Thr
                           120
                                                125
Pro Ser Arg Ser Glu Ser Lys Tyr Lys Ile Gln Cys Pro Thr Cys Gln
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Phe Val Trp Cys Phe Lys Cys His Ser Pro Trp His Glu Gly Val Asn Cys Lys Glu Tyr Lys Lys Gly Asp Lys Leu Leu Arg His Trp Ala Ser Glu lle Glu His Gly Gln Arg Asn Ala Gln Lys Cys Pro Lys Cys Lys Ile His 11e Gln Arg Thr Glu Gly Cys Asp His Met Thr Cys Ser Gln Cys Asn Thr Asn Phe Cys Tyr Arg Cys Gly Glu Arg Tyr Arg Gln Leu Arg Phe Phe Gly Asp His Thr Ser Asn Leu Ser lle Phe Gly Cys Lys Tyr Arg Tyr Leu Pro Glu Arg Pro His Leu Arg Arg Leu Val Arg Gly Ser Val Cys Ala Gly Lys Leu Phe IIe Ala Pro Leu IIe Met Val Leu Gly Leu Ala Leu Gly Ala Ile Ala Val Val Ile Gly Leu Phe Val Phe Pro Ile Tyr Cys Leu Cys Lys Lys Gln Arg Lys Arg Ser Arg Thr Gly Met His Trp

<210> 4265

⟨211⟩ 132

<212> PRT

<213> Homo sapiens

<400> 4265

35 40 45

Phe Trp Phe Val Phe Leu Val Val Ser Val Val Glu Thr Ala Glu Val Leu Gly Asp Ser Leu Gly Phe Gly Ala Gly His Gly Glu Gly Thr Gly Lys Arg Trp Gly Leu Phe Leu Phe Val Thr Tyr Arg Thr Glu Thr Ser Ser Val Asn Cys Tyr Pro Trp Gly Leu Leu His Pro Gly Val Arg Pro Pro Ala Cys Leu Val Pro Cys Pro Ser Pro Arg Ser Arg Ala Gly His Leu Arg Gly

<210> 4266

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4266

Met Val Ala Phe Val Gln Ala Arg Ala Gly Leu Met Asp Val Leu Val Ser Pro Thr Val Gly Cys Gln Leu Ser Arg Pro Thr Gly Arg Asn 11e Arg Leu Ser Ser Ser Leu Thr Pro Asp Thr Arg Pro Gln Trp Ala Cys Thr Gly Pro Gln Lys Val Ser Leu Gly Phe Ala Phe Leu Val Ser Ile Thr Val Lys Glu Ala Leu Ile Glu Gln Leu Gln Cys Thr Trp Ser Ser Ala Ser Ala Gly His Leu Glu Ile Gly Thr Val Met Val Pro Ala Leu Lys Glu Leu Met Thr Trp Trp Gly Pro Val Val Phe Lys Glu Pro Arg Ser His Trp Ala Pro Lys Val Glu Leu Lys Asp Trp Gly Gln Leu Ala

Leu Ser Leu Pro Pro Leu His Cys Leu Pro Leu Lys Asn Pro Thr Pro
130 135 140

Pro His Asp Gly Pro Leu Cys Ser Pro Cys Ile Ser Val Thr Val Asn
145 150 155 160

<210> 4267

<211> 270

<212> PRT

<213> Homo sapiens

<400> 4267

 Met
 Ser
 Ser
 Thr
 Gln
 Phe
 Asn
 Lys
 Gly
 Pro
 Ser
 Tyr
 Gly
 Leu
 Ser
 Ala

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Asp Phe Gln Lys Gly Leu Lys Asp Gly Thr Ile Leu Cys Thr Leu Met 50 55 60

Asn Lys Leu Gln Pro Gly Ser Val Pro Lys lle Asn Arg Ser Met Gln 65 70 75 80

Asn Trp His Gln Leu Glu Asn Leu Ser Asn Phe IIe Lys Ala Met Val 85 90 95

Ser Tyr Gly Met Asn Pro Val Asp Leu Phe Glu Ala Asn Asp Leu Phe
100 105 110

Glu Ser Gly Asn Met Thr Gln Val Gln Val Ser Leu Leu Ala Leu Ala 115 120 125

Gly Lys Met Gly Thr Asn Lys Cys Ala Ser Gln Ser Gly Met Thr Ala 130 135 140

Tyr Gly Thr Arg Arg His Leu Tyr Asp Pro Lys Asn His IIe Leu Pro 145 150 155 160

Pro Met Asp His Ser Thr Ile Ser Leu Gln Met Gly Thr Asn Lys Cys
165 170 175

Ala Ser Gln Val Gly Met Thr Ala Pro Gly Thr Arg Arg His lle Tyr

180 185 190 Asp Thr Lys Leu Gly Thr Asp Lys Cys Asp Asn Ser Ser Met Ser Leu 200 205 Gln Met Gly Tyr Thr Gln Gly Ala Asn Gln Ser Gly Gln Val Phe Glv 210 215 220 Leu Gly Arg Gln 11e Tyr Asp Pro Lys Tyr Cys Pro Gln Gly Thr Val 230 235 Ala Asp Gly Ala Pro Ser Gly Thr Gly Asp Cys Pro Asp Pro Gly Glu 245 250 255 Val Pro Glu Tyr Pro Pro Tyr Tyr Gln Glu Glu Ala Gly Tyr 260 265 270

<210> 4268

<211> 410

<212> PRT

<213> Homo sapiens

<400> 4268

Met Gly Asn Val Val Thr Cys Glu Leu Ser Val Glu Lys Val Cys Asp

1 5 10 15

Glu Asp Gly Glu Ala Lys Glu Leu Asp Tyr Gln Ala Thr Leu Leu Glu

20 25 30

Asp Gln Ala Pro Ala His Phe His Arg Asp Phe Pro Gly Glp Val Phe

Asp Gln Ala Pro Ala His Phe His Arg Asn Phe Pro Glu Gln Val Phe 35 40 45

Gln Asp Leu Gln Arg Lys Ser Pro Glu Ser Glu lle Leu Ser Leu His
50 55 60

Leu Leu Val Glu Glu Leu Arg Leu Asn Pro Asp Gly Val Glu Thr Val 65 70 75 80

Asn Asp Thr Lys Pro Glu Leu Asn Val Ala Ser Ser Glu Gly Glu 85 90 95

Met Glu Arg Arg Asp Ser Asp Ser Phe Leu Asn 11e Phe Pro Glu Lys 100 105 110

Gln Val Thr Lys Ala Gly Asn Thr Glu Pro Val Leu Glu Glu Trp 11e 115 120 125

Pro Val Leu Gln Arg Pro Ser Arg Thr Ala Ala Val Pro Thr Val Lys

	130					135					140				
Asp	Ala	Leu	Asp	Ala	Ala	Leu	Pro	Ser	Pro	Glu	Glu	Gly	Thr	Ser	He
145					150					155					160
Ala	Ala	Val	Pro	Ala	Pro	Glu	Gly	Thr	Ala	Val	Val	Ala	Ala	Leu	Val
				165					170					175	
Pro	Phe	Pro	His	Glu	Asp	He	Leu	Val	Ala	Ser	He	Val	Ser	Leu	Glu
			180					185					190		
Glu	Glu	Asp	Val	Thr	Ala	Ala	Ala	Val	Ser	Ala	Pro	Glu	Arg	Ala	Thr
		195					200					205			
Val	Pro	Ala	Val	Thr	Val	Ser	Val	Pro	Glu	Gly	Thr	Ala	Ala	Val	Ala
	210					215					220				
Ala	Val	Ser	Ser	Pro	Glu	Glu	Thr	Ala	Pro	Ala	Val	Ala	Ala	Ala	He
225					230					235					240
Thr	Gln	Glu	Gly	Met	Ser	Ala	Val	Ala	Gly	Phe	Ser	Pro	Glu	Trp	Ala
				245					250					255	
Ala	Leu	Ala	He	Thr	Val	Pro	He	Thr	Glu	Glu	Asp	Gly	Thr	Pro	Glu
			260					265					270		
Gły	Pro		Thr	Pro	Ala	Thr		Val	His	Ala	Pro	Glu	Glu	Pro	Asp
		275					280					285			
Thr		Ala	Val	Arg	Val		Thr	Pro	Glu	Glu		Ala	Ser	Pro	Ala
	290	1: 1	Б	T)	D	295	0.1		mı		300				
	Ala	Val	Pro	lhr	Pro	GIu	61u	Pro	Thr		Pro	Ala	Ala	Ala	
305	Tl	D	C1	C1	310	ть	C	D	A 3 .	315	4.1	17 1	D	В	320
110	1111	110	GIU		Pro	111,1	ser	Pro		Ala	Ата	vaı	Pro		Pro
C1.,	61	Pro	The	325	Pro	Ala	A1.a	A1.a	330 Val	Dro	Th	Dno	C1	335	D _m =
Oju	Olu	110	340	361	110	мта	мта	345	val	110	1111	F10	350	GIU	110
Thr	Ser	Pro		Ala	Ala	Val	Pro		Pro	Glu	Glu	Pro		Sor	Pro
4 1 1 1	501	355	111 CI	71 C	11.1 CI	, 01	360	1111	110	oru	oru	365	1.1.1	261	110
Ala	Ala		Val	Pro	Thr	Pro		Glu	Pro	Thr	Ser		Ala	Ala	Ala
	370		,			375	J1 u	31 u			380	110	711 G	.116	, 1 1 C
Val		Thr	Pro	Glu	Glu		Ala	Ser	Pro	Ala		Ala	Val	Pro	Thr
385			0		390			~ ~ .		395					400
	Glu	lle	Gln	Cvs	Gly	Trp	Trp	Glv	Tro	-50					
					-			3	1						

<211> 117 <212> PRT <213> Homo sapiens <400> 4269 Met Leu Val Leu Ala Trp Lys Leu Asp Ala Gln Asn Met Gly Tyr Phe 10 Thr Leu Gln Glu Trp Leu Lys Gly Met Thr Ser Leu Gln Cys Asp Thr 20 25 30 Thr Glu Lys Leu Arg Asn Thr Leu Asp Tyr Leu Arg Ser Phe Leu Asn 40 45 Asp Ser Thr Asn Phe Lys Leu 11e Tyr Arg Tyr Ala Phe Asp Phe Ala 50 Arg Gln Ser Lys Tyr Lys Val Ile Asn Lys Asp Gln Trp Cys Asn Val 70 75 Leu Glu Phe Ser Arg Thr Ile Asn Leu Asp Leu Ser Asn Tyr Asp Glu 85 90 Asp Gly Ala Trp Pro Val Leu Leu Asp Glu Phe Val Glu Trp Tyr Lys 100 105 110 Asp Lys Gln Met Ser 115 <210> 4270 <211> 630 <212> PRT <213> Homo sapiens <400> 4270 Met Val Val Ile Ala Val Ser Val Tyr Cys Tyr Trp Arg Lys Ser

Gln Gln Ala Glu Arg Glu Tyr Glu Lys Ile Lys Ser Gln Leu Glu Gly

Leu Glu Glu Ser Val Arg Asp Arg Cys Lys Lys Glu Phe Thr Asp Leu

25

30

20

<210> 4269

		35					40					45			
Met	11e	Glu	Met	Glu	Asp	Gln	Thr	Asn	Asp	Val	His	Glu	Ala	Gly	lle
	50					55					60				
Pro	Va]	Leu	Asp	Tyr	Lys	Thr	Tyr	Thr	Asp	Arg	Val	Phe	Phe	Leu	Pro
65					70					75					80
Ser	Lys	Asp	Gly	Asp	Lys	Asp	Val	Met	lle	Thr	Gly	Lys	Leu	Asp	He
				85					90					95	
Pro	G1u	Pro	Arg	Arg	Pro	Val	Val	Glu	Gln	Ala	Leu	Tyr	Gln	Phe	Ser
			100					105					110		
Asn	Leu	Leu	Asn	Ser	Lys	Ser	Phe	Leu	Ile	Asn	Phe	He	His	Thr	Leu
		115					120					125			
Glu	Asn	Gln	Arg	Glu	Phe	Ser	Ala	Arg	Ala	Lys	Val	Tyr	Phe	Ala	Ser
	130					135					140				
Leu	Leu	Thr	Val	Ala	Leu	His	Gly	Lys	Leu	Glu	Tyr	Tyr	Thr	Asp	He
145					150					155					160
Met	His	Thr	Leu	Phe	Leu	Glu	Leu	Leu	Glu	Gln	Tyr	Val	Val	Ala	Lys
				165					170					175	
Asn	Pro	Lys		Met	Leu	Arg	Arg		Glu	Thr	Val	Va]		Arg	Met
			180					185			_		190		
Leu	Ser		Trp	Met	Ser	He		Leu	Tyr	Gln	Tyr		Lys	Asp	Ser
		195	_		_		200	•				205		~ .	
Ala		Glu	Pro	Leu	Tyr	Lys	Leu	Phe	Lys	Ala		Lys	His	GIn	Val
0.1	210		D	,, ,		215		0.1	,	,	220	,	Tr.	TD1	
	Lys	Gly	Pro	Val		Ala	Val	GIn	Lys		Ala.	Lys	Lyr	Thr	
225	Δ	ть	C1	1	230	C1	Λ	۸	V - 1	235	Т	A 1	D	1	240
Asn	Asp	ınr	GIY	245		Gly	ASP	ASP	250		ГУГ	АТа	Pro	255	mr
Vol	Sor	Val	Ha			Asp	C1u	Cly			Λla	По	Pro		Lvc
vai	261	vai	260	vai	OIH	лър	Olu	265	vai	nsp	ліа	116	270	101	Lys
Val	Lou	Aen		Aen	Thr	He	Sor		Val	lve	Glu	lve		ما1	Asn
, 61	Dea	275	0,5	пор	111,1	,110.	280	0,111	, (1)	Lyo	014	285	110	110	пор
Gln	Val		Arg	Glv	Gln	Pro		Ser	Cvs	Trn	Pro		Pro	Asp	Ser
	290		6	91,		295	•,•				300	0			
Val		Leu	Glu	Tro	Arg	Pro	G] v	Ser	Thr	Ala		lle	Leu	Ser	Asp
305					310					315					320
	Λsp	Leu	Thr	Ser		Arg	Glu	Gly	Arg		Lys	Arg	Val	Asn	

				325					330					335	
Leu	lle	His	Tyr	Asn	Val	Arg	Asp	Gly	Ala	Thr	Leu	lle	Leu	Ser	Lys
			340					345					350		
Val	Gly	Val	Ser	Gln	Gln	Pro	Glu	Asp	Ser	Gln	Gln	Asp	Leu	Pro	Gly
		355					360					365			
Glu	Arg	His	Ala	Leu	Leu	Glu	Glu	Glu	Asn	Arg	Val	Trp	His	Leu	Val
	370					375					380				
Arg	Pro	Thr	Asp	Glu	Val	Asp	Glu	Gly	Lys	Ser	Lys	Arg	Gly	Ser	Val
385					390					395					400
Lys	Glu	Lys	Glu	Arg	Thr	Lys	Ala	He	Thr	Glu	He	Tyr	Leu	Thr	Arg
				405					410					415	
Leu	Leu	Ser	Val	Lys	Gly	Thr	Leu	Gln	Gln	Phe	Val	Asp	Asn	Phe	Phe
			420					425					430		
Gln	Ser		Leu	Ala	Pro	Gly		Ala	Val	Pro	Pro		Val	Lys	Tyr
D.	ъ.	435	5.1	_			440					445			
Phe		Asp	Phe	Leu	Asp		Gln	Ala	Glu	Lys		Asn	He	Gln	Asp
C1	450	T	т.		7.1	455 T		æ.			460	_	_		
	Asp	Inr	Ile	HIS		Trp	Lys	lhr	Asn		Leu	Pro	Leu	Arg	
465	Val	A ===	11.	1	470	Λ	D	112 -	151	475	DI	4	V 1	11.	480
rp	vai	ASN	He		Lys	Asn	Pro	HIS		11e	Phe	Asp	Val		Val
Hic	Glu	Va1	Va]	485 Asp	Ala	Sor	Lou	Son	490	Tlo	Alo.	Cln	Th	495	Mad
1113	Olu	101	500	nsp	Ма	361	Leu	505	vai	116	мта	0111	510	rne	wet
Asn	Ala	Cvs	Thr	Aro	Thr	Glu	Hic		يرم ا	Sor	Ara	Aen		Pro	Son
		515	1113	6		ora	520	12,5	bea	501	ше	525	501	110	561
Asn	Lvs		Leu	Tyr	Ala	Lvs		11e	Ser	Thr	Tvr		lvs	Met	Val
	530					535			-		540	270	25,0		,
Glu	Asp	Tyr	Tyr	Lys	Gly	He	Arg	Gln	Met	Val	Gln	Val	Ser	Asp	Gln
545					550		J			555					560
Asp	Met	Asn	Thr	His	Leu	Ala	Glu	lle	Ser	Arg	Ala	His	Thr	Asp	
				565					570					575	
Leu	Asn	Thr	Leu	Val	Ala	Leu	His	Gln	Leu	Tyr	G1n	Tyr	Thr	G1n	Lys
			580					585					590		
Tyr	Tyr	Λsp	Glu	He	lle	Asn	Ala	Leu	Glu	Glu	Asp	Pro	Ala	Ala	Gln
		595					600					605			
Lys	Met	Gln	Leu	Ala	Phe	Arg	Leu	Gln	Gln	Пе	Ala	Ala	Λla	Leu	Glu

610 615 620 Asn Lys Val Thr Asp Leu 625 630

<210> 4271

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4271

Met Gly His Gly Asp Gly Asp Met Gly Pro Cys Arg Leu His Lys Ala 1 5 10 15

Lys Trp Lys Ser Arg Phe Phe Thr Val Asn Val Gly Arg Pro Phe Phe
20 25 30

Phe Pro Gly Cys Leu Thr Tyr Tyr Cys Arg Ser Ala His 11e His Ser 35 40 45

Phe Pro Ser Val Leu Trp Gln Asp Asp Ile Ile Asp Asp Val Asp Ser
50 55 60

Phe Leu Ala Ala Ala Glu Thr Leu Lys Glu Arg Gly Ala Tyr Lys IIe 65 70 75 80

Phe Val Met Ala Thr His Gly Leu Leu Ser Ser Asp Ala Pro Arg Arg
85 90 95

lle Glu Glu Ser Ala Ile Asp Glu Val Val Val Thr Asn Thr Ile Pro 100 105 110

His Glu Val Gln Lys Leu Gln Cys Pro Lys Ile Lys Thr Val Asp Ile 115 120 125

Ser Met 11e Leu Ser Glu Ala 11e Arg Arg 11e His Asn Gly Glu Ser

130 135 140

Met Ser Tyr Leu Phe Arg Asn lle Gly Leu Asp Asp 145 150 155

<210> 4272

<211> 138

<212> PRT

<213> Homo sapiens

<400> 4272

Met Arg Val Gly Trp Arg Gly Ala Val Cys Pro Ala Ser Arg Pro Arg

1 5 10 15

Gly Gly His Ser Pro Gln Ala 11e Leu Gly Ser Lys Asn Trp Pro Val 20 25 30

Arg Met Cys Leu Arg Leu Ser Pro Arg Gln Gln His His Gln Arg Gly
35 40 45

Thr Ser Leu Ser Trp Gly Ser His Val Glu Leu Tyr Leu Glu Gln Ile 50 55 60

Val Asn Arg Gly Ala Cys Gln Phe Thr Phe Ile Arg Thr Arg Phe Phe
65 70 75 80

Ser Leu Pro Asp Leu Pro Cys Lys Ser His Gly Gly Val Gly 11e Lys 85 90 95

Glu Lys Arg Ala Tyr Leu Asp Phe His Asp Leu Ser Val Asn Asp Ser 100 105 110

Tyr Pro Gly Trp Arg Phe Leu Ala Pro Phe Leu Ala Leu Asp Pro Met 115 120 125

Thr Pro Ser Met 11e Phe Phe Lys Val Gln 130 135

<210> 4273

<211> 522

<212> PRT

<213> Homo sapiens

<400> 4273

Met Met Gly His Arg Pro Val Leu Val Leu Ser Gln Asn Thr Lys Arg

Glu Ser Gly Arg Lys Val Gln Ser Gly Asn Ile Asn Ala Ala Lys Thr 20 25 30

Ile Ala Asp lle lle Arg Thr Cys Leu Gly Pro Lys Ser Met Met Lys
35 40 45

Met Leu Leu Asp Pro Met Gly Gly 11e Val Met Thr Asn Asp Gly Asn

	50					55					60				
Ala	He	Leu	Arg	Glu	lle	Gln	Val	Gln	His	Pro	Ala	Ala	Lys	Ser	Met
65					70					75					80
He	Glu	He	Ser	Arg	Thr	Gln	Asp	Glu	Glu	Val	Gly	Asp	Gly	Thr	Thr
				85					90					95	
Thr	Val	Val	He	Ser	Ala	Tyr	Arg	Lys	Ala	Leu	Asp	Лsp	Met	He	Ser
			100					105					110		
Thr	Leu	Lys	Lys	He	Ser	He	Pro	Val	Asp	lle	Ser	Asp	Ser	Asp	Met
		115					120					125			
Met	Leu	Asn	lle	He	Asn	Ser	Ser	lle	Thr	Thr	Lys	Ala	He	Ser	Arg
	130					135					140				
Trp	Ser	Ser	Leu	Ala	Cys	Asn	lle	Ala	Leu	Asp	Ala	Val	Lys	Met	Val
145					150					155					160
Gln	Phe	Glu	Glu	Asn	Gly	Arg	Lys	Glu	He	Asp	He	Lys	Lys	Tyr	Ala
				165					170					175	
Arg	Val	Glu	Lys	He	Pro	Gly	Gly	lle	lle	Glu	Asp	Ser	Cys	Val	Leu
			180					185					190		
Arg	Gly	Val	Met	He	Asn	Lys		Val	Thr	His	Pro	Arg	Met	Arg	Arg
		195					200					205			
His		Lys	Asn	Pro	Arg		Val	Leu	Leu	Asp	Ser	Ser	Leu	Glu	Tyr
	210					215					220				
	Lys	Gly	Glu	Ser		Thr	Asp	11e	Glu		Thr	Arg	Glu	Glu	
225					230					235					240
Phe	lhr	Arg	He	Leu	GIn	Met	Glu	GIu		Tyr	He	GIn	G1n		Cys
C.1	•	2.1		245			15		250			m.	0.1	255	0.1
61 u	Asp	116		G1n	Leu	Lys	Pro		Val	val	He	lhr		Lys	Gly
11.	C a m	A	260	A 7	C1-	11: -	т	265	W- 4	Α	A 7 .	A	270	ть	۸1.
116	Ser.	Asp 275	Leu	Ala	GIN	HIS		Leu	мет	Arg	Ala		116	Inr	Ala
110	Ara		Val	Arg	Lve	Tha	280	Acn	Aan	Ana	116	285	Ana	Alo	Cua
HU	290	лι g	101	ллд	Lys	295	nsp	ASII	ASII	Mg	300	MIA	му	та	Cys
G1v		Ara	He	Val	Sor		Pro	Glu	Glu	Lou		Clu	Acn	Acn	Val
305	MIG	.11 8	110	vai	310	мв	110	Olu	Olu	315	шg	Olu	лэр	лэр	320
	Thr	G1 v	Ala	Gly		Len	Glu	He	Lvs		He	Glv	Asn	Glu	
		~ A .*	.,,,,,	325	204	1.0u	014		330	ی ری	116	Gry	11017	335	. , 1
Phe	Thr	Phe	He	Thr	Asp	Cvs	Lvs	Asp		Lvs	Ala	Cvs	Thr		Leu

			340					345					350		
Leu	Arg	Gly	Ala	Ser	Lys	Glu	He	Leu	Ser	Glu	Val	Glu	Arg	Asn	Leu
		355					360					365			
Gln	Asp	Ala	Met	Gln	Val	Cys	Arg	Asn	Val	Leu	Leu	Asp	Pro	Gln	Leu
	370					375					380				
Val	Pro	Gly	Gly	Gly	Ala	Ser	Glu	Met	Ala	Val	Ala	His	Ala	Leu	Thr
385					390					395					400
Glu	Lys	Ser	Lys	Ala	Met	Thr	G1 y	Va]	Glu	Gln	Trp	Pro	Tyr	Arg	Ala
				405					410					415	
Val	Ala	Gln	Ala	Leu	Glu	Val	He	Pro	Arg	Thr	Leu	Ile	Gln	Asn	Cys
			420					425					430		
Gly	Ala	Ser	Thr	He	Arg	Leu	Leu	Thr	Ser	Leu	Arg	Ala	Lys	His	Thr
		435					440					445			
Gln	Glu	Asn	Cys	G]u	Thr	Trp	Gly	Val	Asn	Gly	Glu	Thr	Gly	Thr	Leu
	450					455					460				
Val	Asp	Met	Lys	Glu	Leu	Gly	Пe	Trp	Glu	Pro	Leu	Ala	Val	Lys	Leu
465					470					475					480
Gln	Thr	Tyr	Lys	Thr	Ala	Val	Glu	Thr	Ala	Val	Leu	Leu	Leu	Arg	He
				485					490					495	
Asp	Asp	He	Val	Ser	Gly	His	Lys	Lys	Lys	Gly	Asp	Asp	Gln	Ser	Arg
			500					505					510		
Gln	Gly	Gly	Ala	Pro	Asp	Ala	Gly	Gln	Glu						
		515					520								

<210> 4274

<211> 191

<212> PRT

<213> Homo sapiens

<400> 4274

Met Ser Ser Thr Leu Gly Lys Leu Ser Asn Gln Val Glu Glu Thr Leu 1 5 10 15 Pro Leu Lys Lys Pro Leu Lys Arg Ala Ile Thr Thr Leu Met Ala 20 25 30

Gly Ile Leu Arg Leu Val Val Gln Trp Pro Pro Gly Arg Leu Gln Thr

Val Thr Lys Gly Val Glu Ser Leu lle Cys Thr Asp Trp lle Arg His Lys Phe Thr Arg Ser Arg Ile Pro Glu Lys Ala Phe Gln Ala Ser Pro Glu Asp His Glu Lys Tyr Gly Gly Asp Pro Gln Asn Pro His Lys Leu His lle Val Thr Arg lle Lys Ser Thr Arg Arg Arg Pro Tyr Trp Glu Lys Asp Ile Ile Lys Met Leu Gly Leu Glu Lys Ala His Thr Pro Gln Val His Lys Asn Ile Pro Ser Val Asn Ala Lys Leu Lys Val Val Lys His Leu Ile Arg Ile Lys Pro Leu Lys Leu Pro Gln Gly Leu Pro Thr Glu Glu Asn Met Ser Asn Thr Cys Leu Lys Ser Thr Gly Glu Leu Val Val Gln Trp His Leu Lys Pro Val Glu Gln Lys Ala His Glu Ser

<210> 4275

<211> 131

<212> PRT

<213> Homo sapiens

<400> 4275

 Met Leu Asp Ile Leu Val Tyr
 Glu Glu Gln Gln Gln Ala Ala Ala Ala Gly

 1
 5
 10
 15

 Glu Ala Gly Pro Cys Leu Glu Tyr Leu Leu Gln His Lys Ile Leu Glu
 20
 25
 30

 Thr Leu Cys Thr Leu Gly Lys Ala Glu Val Gly Gly Pro Leu Arg Ala
 45

 Gly Pro Gly Arg Gly Gly Arg Pro Leu Arg Ala Trp Pro Gly Arg Gly
 55
 60

<210> 4276

<211> 357

<212> PRT

<213> Homo sapiens

<400> 4276

Met Phe Cys Tyr Lys Trp Arg Arg Arg Arg Thr Thr Thr Met Gly Ile

1 5 10 15

Ser Glu Glu Phe Asn Gly Lys Pro Asp Ser Leu Phe Phe Asn Asp Gly
20 25 30

Gln Arg Arg Ile Asp Phe Val Leu Val Tyr Glu Asp Glu Ser Arg Lys

35 40 45

Glu Thr Asn Lys Lys Gly Thr Asn Glu Lys Gln Arg Arg Lys Arg Gln

50 55 60

Ala Tyr Glu Ser Asn Leu lle Cys His Gly Leu Gln Leu Glu Ala Thr
65 70 75 80

Arg Ser Val Leu Asp Asp Lys Leu Val Phe Val Lys Val His Ala Pro 85 90 95

Trp Glu Val Leu Cys Thr Tyr Ala Glu lle Met His lle Lys Leu Pro 100 105 110

Leu Lys Pro Asn Asp Leu Lys Asn Arg Ser Ser Ala Phe Gly Thr Leu 115 120 125

Asn Trp Phe Thr Lys Val Leu Ser Val Asp Glu Ser Ile Ile Lys Pro

	130					135					140				
Glu	Gln	Glu	Phe	Phe	Thr	A]a	Pro	Phe	Glu	Lys	Asn	Arg	Met	Asn	Asp
145					150					155					160
Phe	Tyr	lle	Val	Asp	Arg	Лsp	Λla	Phe	Phe	Asn	Pro	Ala	Thr	Arg	Ser
				165					170					175	
Arg	He	Val	Tyr	Phe	He	Leu	Ser	Arg	Val	Lys	Tyr	Gln	Val	11e	Asn
			180					185					190		
Asn	Val	Ser	Lys	Phe	Gly	lle	Asn	Arg	Leu	Val	Asn	Ser	Gly	Пе	Tyr
		195					200					205			
Lys	Ala	Ala	Phe	Pro	Leu	His	Asp	Cys	Lys	Phe	Arg	Arg	Gln	Ser	Glu
	210					215					220				
Asp	Pro	Ser	Cys	Pro	Asn	Glu	Arg	Cys	Leu	Leu	Tyr	Arg	Glu	Trp	Ala
225					230					235					240
His	Pro	Arg	Ser	Пе	Tyr	Lys	Lys	Gln	Pro	Leu	Asp	Leu	Пе	Arg	Lys
				245					250					255	
Tyr	Tyr	Gly	Glu	Lys	lle	Gly	He	Tyr	Phe	Ala	Trp	Leu	Gly	Tyr	Tyr
			260					265					270		
Thr	Gln	Met	Leu	Leu	Leu	Ala	Ala	Val	Val	Gly	Val	Ala	Cys	Phe	Leu
		275					280					285			
Tyr	Gly	Tyr	Leu	Asn	Gln	Asp	Asn	Cys	Thr	Trp	Ser	Lys	Glu	Val	Cys
	290					295					300				
His	Pro	Asp	He	Gly	Gly	Lys	lle	He	Met	Cys	Pro	Gln	Cys	Asp	Arg
305					310					315					320
Leu	Cys	Pro	Phe	Trp	Lys	Leu	Asn	He	Thr	Cys	Glu	Ser	Ser	Lys	Lys
				325					330					335	
Leu	Cys	He	Phe	Asp	Ser	Phe	Gly	Thr	Leu	Val	Phe	Ala	Val	Phe	Met
			340					345					350		
Gly	Val	Trp	Asp	Pro											
		355													

<210> 4277

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4277 Met Pro Gln Leu Gly Phe Val Pro Ile Leu Phe Cys Leu Cys Arg Lys 5 10 Ser Val Ser Asn His Ser Gly Pro Val Gln Cys Phe Trp Met Lys Gln 20 25 30 Asn Cys Glu Thr His Thr Ala Leu Ser Thr Cys Leu Pro Trp Gly Glu 40 Ser His Ile Asn Ile Ile Val Ser Tyr Leu His Ile Tyr Pro Cys Ser 55 60 Cys Gly Trp Gln Gln Pro Arg Asp Lys Arg Gln Ile Lys Ser Ala Arg 70 75 80 Val Ser Leu Ala Arg Lys Gly Arg Val Gln Val Thr Leu Lys Gly Gln 85 90 Glu Thr His Ser Arg Trp Gly 11e Pro Gly Val Pro Gly 11e Gly Pro

105

110

<210> 4278

Glu

<211> 102

<212> PRT

<213> Homo sapiens

100

<400> 4278

 Met
 Pro
 Ala
 Phe
 Ser
 Val
 Pro
 Cys
 Ser
 Arg
 Thr
 Val
 Asn
 Ser
 Phe
 Leu

 1
 5
 5
 10
 10
 10
 15
 15

 Ser
 Leu
 Phe
 Ser
 Leu
 11e
 Asn
 Asp
 Ser
 Ala
 11e
 Asn
 Cys

 Asp
 Glu
 Cys
 Phe
 Arg
 Phe
 Met
 Trp
 Ser
 11e
 Lys
 Arg
 Asp
 Tyr
 Thr
 Ser

 Asp
 Glu
 Cys
 Phe
 Arg
 Phe
 Met
 Trp
 Ser
 11e
 Lys
 Arg
 Asp
 Tyr
 Thr
 Ser

 Trp
 Asp
 Phe
 Val
 Ala
 Ile
 Ser
 Glu
 Ala
 Ile
 Val
 Trp
 Leu
 Ser

 Trp
 Asp
 Phe
 Arg
 Phe
 Met
 Trp
 Arg
 Arg Asp Tyr Phe Ser Leu Ser Leu Arg Leu Leu Asp Ser Ile Leu Gln

85 90 95

Ser Val Met Asp His Ile 100

<210> 4279

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4279

Met Val Ser Asn Thr Cys Cys Arg Leu His Val Glu Leu Ser Leu 11e

1 5 10 15

Ser Pro Arg Val Gly Met Ser Arg Gly Gly Leu Met Phe Leu Pro Leu 20 25 30

Thr Leu Leu Ser Ser Pro Gly Gln Asp Phe Glu Trp Arg Val Trp Gly
35 40 45

Ile Leu Leu Ala Val Ala Leu Gly Thr Leu Ala Thr Pro Phe Ala Leu 50 55 60

Pro Cys Val Val Gly Gln Tyr Leu Glu Trp Ser Gly Gln Thr Arg Glu 65 70 75 80

Thr Tyr Arg Arg Ser Arg Gly His Ser Asp Ala His Arg Pro Leu Ser 85 90 95

Val Gly Arg Leu Gly Cys Asp Leu Phe Arg Arg Ser Gly Val His Thr 100 105 110

Val

<210> 4280

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4280

Met	Lys	Thr	Gly	Arg	Ser	His	Thr	Leu	Arg	Ser	Glu	Ala	Gln	Gly	His
1				5					10					15	
His	Lys	Pro	Gly	Arg	His	Glu	Ala	Arg	Pro	Glu	Arg	His	Arg	G1n	Ala
			20					25					30		
Glu	Glu	Trp	Thr	Glu	Glu	Gln	Gln	Arg	Ser	Leu	Glu	Asp	Glu	Ser	Gln
		35					40					45			
Leu	Cys	Lys	Glu	Leu	Pro	Arg	Val	Phe	Leu	Pro	Gln	Lys	Phe	His	Leu
	50					55					60				
Ala	Thr	Glu	Met	Ala	Leu	Ala	Leu	Gly	Gln	Glu	Arg	Gly	Gly	Asp	Glu
65					70					75					80
Leu	Leu	Met	Ala	Met	Thr	Phe	Ser	Gln	His	Val	Leu	Pro	Val	Leu	Pro
				85					90					95	
Arg	Val	Glu	Met	Pro	Leu										
			100												
<210	0> 42	281													
<21	1> 10	39													
<212	2> PI	RT													
<213	3> He	omo s	sapi	ens						•					
	0> 42									_					
	His	Ala	Asp		Ala	Ala	Pro	Arg		Cys	His	Arg	Phe		Pro
1	61	T)	61	5	T)		D		10					15	
Ser	GIn	Ihr		HIS	Ihr	Leu	Pro		Irp	Arg	Cys	Ala		Pro	Ser
	T	C	20	37 3	T.	0.1		25		0.1	D.		30		.
Leu	irp		Arg	Val	Irp	Gln		Ala	His	GIn	Phe		Leu	Leu	Pro
т.	4	35	D	A 3	DI	C	40	4.3				45		T	
пр		Leu	rro	АТА	rne	Ser	ınr	Ala	11e	H1S		АТа	Asn	ırp	Asp
C.	50 T	e.	n.	T.	1 .	55	4.3	C			60		4.7	TI	D
	ırp	ser	rro	ıyr		Ala	ма	ser	Asp		val	Arg	на	ınr	
65	A ::==	C1	1 000	TL	70 Cua	C1	C1	Λ	C	75 C	V - 1	11.	т	DL .	80
OIY	AT'S	010	nsp	1111	$\cup y S$	G1 y	0.10	ASII	261	Cys	val	116	IVI	$_{\rm LH6}$	$\operatorname{\mathfrak{ser}}$

Phe Gly 11e Gly Cys Leu Gln Arg Phe Met Gly Gly Gly Leu Met

Leu Arg Ala Gln Lys Phe Gln Gly His Leu Gly Arg Pro Asp Ile Gln Arg Pro Ser Arg Cys Ala Cys Ser Met Tyr Gln Gly Arg Arg Phe Ser Gln Gln Gly Trp Cys His Trp His Asp Arg Pro Ala Leu Ala Glu Arg Ser Pro Val Phe Gly Val Gln Pro Pro

<210> 4282 <211> 285

<212> PRT

<213> Homo sapiens

<400> 4282 Met Phe Thr Ser Gln Gln Trp Lys His Leu Ser Asn Asp Phe Leu Lys Thr Gln Gln Glu Lys Arg His Ser Trp Phe Lys Ala Ser Gly Thr Ile Lys Lys Phe Arg Ala Gly Leu Ser Ile Phe Ser Pro Ile Pro Lys Ser Pro Ser Phe Pro Ile Ile Gln Asp Ser Met Leu Lys Gly Lys Leu Gly Val Pro Glu Leu Arg Val Gly Arg Leu Met Asn Arg Ser Ile Ser Cys Thr Met Lys Asn Pro Lys Val Glu Val Phe Gly Tyr Pro Pro Ser Pro Gln Val Ser Gly His Cys Lys Asn Ile Pro Thr Leu Glu Tyr Gly Phe Leu Val Gln lle Met Lys Tyr Ala Glu Gln Arg lle Pro Thr Leu Asn Glu Tyr Cys Val Val Cys Asp Glu Gln His Val Phe Gln Asn Gly Ser

Met Leu Lys Pro Ala Val Cys Thr Arg Glu Leu Cys Val Phe Ser Phe

Tyr Thr Leu Gly Val Met Ser Gly Ala Ala Glu Glu Val Ala Thr Gly 170 Ala Glu Val Val Asp Leu Leu Val Ala Met Cys Arg Ala Ala Leu Glu 180 185 190 Ser Pro Arg Arg Ser Ile Ile Phe Glu Pro Tyr Pro Ser Val Val Asp 195 200 Pro Thr Asp Pro Lys Thr Leu Ala Phe Asn Pro Lys Lys Lys Asn Tyr 215 220 Glu Arg Leu Gln Lys Ala Leu Asp Ser Val Met Ser Ile Arg Glu Met 225 230 235 240 Thr Gln Gly Ser Tyr Leu Glu Ile Lys Lys Gln Met Asp Lys Leu Asp 245 250 Pro Leu Ala His Pro Leu Leu Gln Trp Ile Ile Ser Ser Asn Arg Ser 265 270 His 11e Val Lys Leu Pro Leu Ser Arg Trp Val Pro His 275 280 285

<210> 4283

<211> 121

<212> PRT

<213> Homo sapiens

<400> 4283

Met Pro Arg Gly Val Gln lle Lys Lys Arg Ala Cys Ala Gln Met Trp 5 10 15 Ala Gln Val Ser Gln Arg Gly Lys Ser Ser Phe Trp Pro Ser Leu Gln 25 His Ala Leu Gly Pro Ser Asn Ile Ser Lys Ile Arg Lys Glu Leu Phe 35 40 45 Ser Ser His Gln Tyr Leu Leu Cys Phe Gln Thr 11e Phe Phe Ala Asn 55 Leu Pro Cys Gln Cys Ser Val Pro Pro Cys Pro His Thr Ser Ser Ala 70 75 Gly Arg Ala Ala Leu Glu Thr Val Leu Ser Ile Pro Cys Gly Glu Arg

85 90 95

<210> 4284

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4284

Met Ile Asn Glu Ser Gly Thr Glu Leu Gln Asp Lys Tyr Cys Tyr Arg

1 5 10 15

Ala Ser Pro Ala Ala Gln Ile Thr Gly Lys Ile Ser Pro Arg Leu Phe 20 25 30

Ile Ser Pro Leu Pro Pro Trp Pro Ser Gly Ser Ser Gln Gln Ser Arg
35 40 45

Ile His Pro Ser Pro Phe Pro Arg Pro His Pro Ser Leu Ser Ser Gln 50 55 60

Arg Thr Ala Gly Glu Arg Gly Met Gln IIe Gly Pro Gly Ala Gly Gly 65 70 75 80

Pro Leu Cys Leu Ala Ala Leu Cys Leu Pro Ala Gln Leu Trp Arg Gln 85 90 95

Pro Arg Gly Ala Gly Met Val Arg Val Met Leu Phe Ser Val Val Asp 100 105 110

Glu Cys Leu Ala Leu Gln Thr

115

<210> 4285

<211> 169

<212> PRT

<213> Homo sapiens

<400> 4285

Met	Asn	Ser	Cys	Arg	Glu	Gln	Cys	Pro	Phe	His	Gly	Trp	Ala	His	Sei
1				5					10					15	
Trp	His	Gln	Leu	Ser	Trp	Ser	Asn	Gly	Asn	Pro	He	Tyr	Cys	Thr	Arg
			20					25					30		
Asp	Thr	Phe	Cys	Gly	Asp	Ser	Glu	Met	Gln	Arg	Asp	Gln	lle	Thr	Sei
		35					40					45			
Arg	Lys	Gly	Arg	Ala	Trp	Cys	Glu	Gly	Thr	Arg	Leu	Thr	Asp	He	Pro
	50					55					60				
Asp	Asp	Lys	Pro	Val	Gly	Pro	Ser	Gly	Ser	Leu	Pro	Pro	Ala	Ser	His
65					70					75					80
Ser	Gly	Glu	Gly	Pro	Val	He	Glu	Ala	Val	Gly	Ile	Pro	Glu	Glu	Arg
				85					90					95	
Thr	Gln	Gln	Lys	Gln	Val	Glu	Gly	Val	Gly	Gln	Arg	Ala	Asp	Leu	Pro
			100					105					110		
Pro	Ala	Thr	Leu	Ser	Tyr	Cys	Ser	Ser	Arg	Gly	Asn	Asn	Leu	Gly	Gly
		115					120					125			
Cys	His	Glu	Gly	Phe	Ser	Gly	Ala	Pro	Phe	Pro	Trp	Gly	Leu	Met	Glı
	130					135					140				
Gly	Gly	Asn	Cys	Val	Asn	Val	Val	Trp	Trp	Lys	Lys	Gln	Ala	Trp	Sei
145					150					155					160
Ala	His	Arg	Leu	Gly	Val	Pro	Arg	Пе							
				165											

<210> 4286

<211> 168

<212> PRT

<213> Homo sapiens

<400> 4286

Met Cys Ala Ser Thr Ser Arg Arg Ser Ser Thr Trp Pro Gln Pro Ala land Ser Arg Ser Ser Thr Trp Pro Gln Pro Ala Ser Arg Ser Arg Ser Gln Arg Ser Gln Arg Ser Gln Ser Gln Ser Gln Ser Cys Ser Gln Ser Cys Ser Leu Thr Ala Arg Pro Gln Pro Arg Val Ala Tyr Ala

35 40 45

His	Leu	Met	Ser	Ser	Leu	Arg	He	Arg	Arg	Leu	Ser	Gly	Arg	Thr	Trp
	50					55					60				
Leu	Ser	Ser	Leu	Лlа	Asp	Arg	Arg	Pro	Arg	Gln	Arg	Ala	Gly	Gln	Leu
65					70					75					80
Pro	Ser	Cys	Thr	Thr	Gln	Gly	Ser	Thr	Gln	Pro	Ala	Gln	Lys	Thr	Trp
				85					90					95	
Pro	His	Gly	Val	Val	Ser	Gly	Ser	Ser	Arg	Thr	Leu	Trp	His	Ser	Ala
			100					105					110		
His	Phe	Arg	Ser	Gly	Ser	Thr	Ser	Pro	Ser	Lys	Arg	Ser	Ser	Ser	Lys
		115					120					125			
Pro	Met	Val	Ala	Ala	Arg	Pro	Arg	Gly	Arg	Arg	Arg	Ala	Ala	Gly	Arg
	130					135					140				
Pro	Leu	Pro	Pro	His	Glu	Ala	Ala	Gln	Thr	Gly	Arg	Leu	Arg	Arg	Pro
145					150					155					160
Arg	Ala	Arg	Trp	Leu	Ser	Pro	Asp								
				165											

<210> 4287 <211> 495 <212> PRT

<213> Homo sapiens

<400> 4287

Met His His Trp Cys lle Pro Phe Ser Val Asp Gly Gln Pro Ala Pro 1 5 10 15 Ser Leu Arg Trp Leu Phe Asn Gly Ser Val Leu Asn Glu Thr Ser Phe 25 lle Phe Thr Glu Phe Leu Glu Pro Ala Ala Asn Glu Thr Val Arg His 35 40 45 Gly Cys Leu Arg Leu Asn Gln Pro Thr His Val Asn Asn Gly Asn Tyr 55 Thr Leu Leu Ala Ala Asn Pro Phe Gly Gln Ala Ser Ala Ser Ile Met 70 75 Ala Ala Phe Met Asp Asn Pro Phe Glu Phe Asn Pro Glu Asp Pro Ile

90

95

Pro	Asp	Thr	Asn 100	Ser	Thr	Ser	Gly	Asp 105	Pro	Val	Glu	Lys	Lys 110	Asp	Glu
Thr	Pro	Phe 115	Gly	Val	Ser	Val	Ala 120	Val	Gly	Leu	Ala	Val 125	Phe	Ala	Cys
Leu	Phe 130	Leu	Ser	Thr	Leu	Leu 135	Leu	Val	Leu	Asn	Lys 140	Cys	Gly	Arg	Arg
Asn	Lys	Phe	Gly	He	Asn	Arg	Pro	Ala	Val	Leu	Ala	Pro	Glu	Asp	Gly
145					150					155					160
Leu	Ala	Met	Ser	Leu 165	His	Phe	Met	Thr	Leu 170	Gly	Gly	Ser	Ser	Leu 175	Ser
Pro	Thr	Glu	Gly 180	Lys	Gly	Ser	Gly	Leu 185	Gln	Gly	His	lle	11e 190	Glu	Asn
Pro	Gln	Tyr 195	Phe	Ser	Asp	Ala	Cys 200	Val	His	His	He	Lys 205	Arg	Arg	Asp
He	Val 210	Leu	Lys	Trp	Gly	Leu 215	Gly	Glu	Gly	Ala	Phe 220	Gly	Lys	Val	Phe
Leu 225	Ala	Glu	Cys	His	Asn 230	Leu	Leu	Pro	Glu	Gln 235	Asp	Lys	Met	Leu	Val 240
Ala	Val	Lys	Ala	Leu 245	Lys	Glu	Ala	Ser	Glu 250	Ser	Ala	Arg	Gln	Asp 255	Phe
Gln	Arg	Glu	Ala 260	Glu	Leu	Leu	Thr	Met 265	Leu	G1n	His	Gln	His 270	lle	Val
Arg	Phe	Phe 275	Gly	Val	Cys	Thr	61u 280	Gly	Arg	Pro	Leu	Leu 285	Met	Val	Phe
G1u	Tyr 290	Met	Arg	His	Gly	Asp 295	Leu	Asn	Arg	Phe	Leu 300	Arg	Ser	His	G1 y
Pro	Asp	Ala	Lys	Leu	Leu	Ala	Gly	G1 y	Glu	Asp	Val	Ala	Pro	Gly	Pro
305					310					315					320
Leu	G1y	Leu	Gly	G1n 325	Leu	Leu	Ala	Val	Ala 330	Ser	Gln	Val	Ala	Ala 335	Gly
Met	Val	Tyr	Leu 340	Ala	Gly	Leu	His	Phe 345	Val	His	Arg	Asp	Leu 350	Ala	Thr
Arg	Asn	Cys 355	Leu	Val	Gly	G1n	Gly 360	Leu	Va]	Val	Lys	11e 365	Gly	Asp	Phe
Gly	Met 370	Ser	Arg	Asp	He	Tyr 375	Ser	Thr	Asp	Tyr	Tyr 380	Arg	Val	Gly	Gly

Thr Glu Ala Ile Asp Cys Ile Thr Gln Gly Arg Glu Leu Glu Arg Pro
435

Arg Ala Cys Pro Pro Glu Val Tyr Ala Ile Met Arg Gly Cys Trp Gln
450

Arg Glu Pro Gln Gln Arg His Ser Ile Lys Asp Val His Ala Arg Leu
465

Ala Leu Ala Gln Ala Pro Pro Val Tyr Leu Asp Val Leu Gly
495

<210> 4288

<211> 252

<212> PRT

<213> Homo sapiens

<400> 4288

 Met
 Pro
 11e
 Leu
 Gln
 Ala
 Leu
 Cys
 Leu
 Pro
 Lys
 Val
 Ser
 Thr
 Pro
 10
 15
 15

 Ser
 11e
 Thr
 Val
 Pro
 Ser
 Pro
 Gln
 Arg
 Ser
 Ala
 Ala
 Ala
 Ala
 Leu
 Ser
 11e
 Thr
 Pro
 Ser
 Ile
 Thr
 Pro
 Pro<

90

95

Val Pro Ser Pro Gln Arg Ser Pro Gln Met Ser Leu Ser Ser Ala Ala 105 Arg Gly Ser Asn Thr Asp Val Ala Gly Leu Ser Val Gly Glu Trp Pro 120 125 Gly Trp Gln Leu Trp Gly Glu Gly Gln Asp Gly Ala Gln Gln Arg Pro 135 140 His Leu Pro Ser Gly Gly Ser Gly Ala Gly Val Ala Pro Gln Arg Leu 150 155 Pro Lys Ser Arg Ala Cys Ile Leu Cys Ser Arg His Gly Ala Gln Gly 165 170 Pro Trp Val Thr Gly Arg Ser Val Ser His Ser His Cys Pro Ile Gln 180 185 190 Gly Leu Leu Asp Leu Gln Arg Pro Asp Leu Gly Thr Asp Trp Gly Arg 200 195 205 Thr Arg Pro Leu Cys Thr Pro Gln Asp Leu Cys Gly Gly Arg Pro Leu 210 215 220 Pro Ser Thr Trp Gly Val Thr Met His Leu Ile His Cys Leu Ser Val 230 235 240 Ser Leu Ser Leu Cys Leu Ser Leu Ser His Cys Val 245 250

<210> 4289

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4289

Met Met Phe Leu Met Asn Thr Ser Pro Cys Pro Phe Phe Phe Phe 1 5 10 15

Arg Trp Ser Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Thr Ile 20 25 30

Ser Gly His Cys Asn Leu Arg Pro Pro Ala Ser Ser Asp Ser Pro Val
35 40 45

Ser Ala Ser Arg Val Ala Arg Ile Thr Gly Ala Arg His Gln Ala Trp 50 55 60 Leu Ile Phe lle Phe Leu Val Glu Met Gly Phe Cys Leu Val Gly Gln Ala Gly Leu Lys Leu Leu Thr Ser Gly Asp Pro Ser Thr Leu Ala Ser 90 Gln Ser Ala Gly Thr Thr Gly Val Ser His His Ala Trp Ser Pro Thr 100 105 110 Cys

<210> 4290

<211> 122

<212> PRT

<213> Homo sapiens

<400> 4290

Met Ser Tyr Gly Arg Pro Pro Pro Asp Val Glu Gly Met Thr Ser Leu 10

Lys Val Asp Asn Leu Thr Tyr Arg Thr Ser Pro Asp Thr Leu Arg Arg 20 25 30

Val Phe Glu Lys Tyr Gly Arg Val Gly Asp Val Tyr lle Pro Arg Asp 40 45

Arg Tyr Thr Lys Glu Ser Arg Gly Phe Ala Phe Val Arg Gly Pro Gly 55

Pro Gly Leu Gly Pro Gly Val Leu Pro Gln Cys Pro Arg Gly Asn Pro 70 75 65

Asn Pro Gly Arg Asp Arg Arg Val Pro Pro Ser Leu Leu Lys Arg Lys 85 90

Glu Arg Cys Pro Leu Lys Lys Met Val Met Ser Gly Asn Pro Arg His 100 105 110

lle Thr Leu lle His Lys Trp Asp Leu Gly 115 120

<210> 4291

<211> 372

<213	3> Ho	omo s	sapie	ens											
<400)> 42	291													
Met	Glu	Pro	Gly	Arg	Arg	Gly	Ala	Ala	Ala	Leu	Leu	Ala	Leu	Leu	Cys
1				5					10					15	
Val	Ala	Cys	Ala	Leu	Arg	Ala	Gly	Arg	Ala	Gln	Tyr	Glu	Arg	Tyr	Ser
			20					25					30		
Phe	Arg	Ser	Phe	Pro	Arg	Asp	Glu	Leu	Met	Pro	Leu	Glu	Ser	Ala	Tyr
		35					40					45			
Arg	His	Ala	Leu	Asp	Lys	Tyr	Ser	Gly	Glu	His	Trp	Ala	Glu	Ser	Val
	50					55					60				
Gly	Tyr	Leu	Glu	Пе	Ser	Leu	Arg	Leu	His	Arg	Leu	Leu	Arg	Leu	Phe
65					70					75					80
Gly	Gly	Leu	Leu	Arg	Arg	Ala	His	Cys	Leu	Lys	Arg	Cys	Lys	Gln	Gly
				85					90					95	
Leu	Pro	Ala	Phe	Arg	Gln	Ser	Gln	Pro	Ser	Arg	Glu	Val	Leu	Ala	Asp
			100					105					110		
Phe	Gln	Arg	Arg	Glu	Pro	Tyr	Lys	Phe	Leu	Gln	Phe	Ala	Tyr	Phe	Lys
		115					120					125			
Ala		Asn	Leu	Pro	Lys		He	Ala	Ala	Ala	His	Thr	Phe	Leu	Leu
	130					135					140				
	His	Pro	Asp	Asp		Met	Met	Lys	Arg	Asn	Met	Ala	Tyr	Tyr	
145					150					155					160
Ser	Leu	Pro	Gly		G] u	Asp	Tyr	lle		Asp	Leu	G] u	Thr		Ser
_				165					170				.	175	
Tyr	Glu	Ser		Phe	He	Arg	Ala		Arg	Ala	Tyr	Asn		Glu	Asn
T		TI	180	7.7	T)			185	,	• 1	,	n	190	DI	Di
Trp	Arg		Ser	116	Ihr	Asp		61u	Leu	Ala	Leu		Asp	Phe	Phe
1	A 1	195	Т	C 1	C	1	200	A1	Cook	C1	C1	205	A	C1	11.
Lys		гне	IVI	Gru	Cys		ита	ATA	Cys	Glu	-	261	Arg	Gra	116
Lva	210	Dbo	Lve	Aan	Dho	215 Tur	Lou	San	116	Ala	220	uic	Tun	Vol	<i>C</i> 1
225	ush	1 116,	rks	лэр	230	1 y 1	r,e:u	261	116	Ala 235	usb	шѕ	iyi	101	240
	Lou	Glo	Cve	Lve		Gla	Cve	Gla	Gho	Asn	Lov	Thr	Pro	Val	
, a 1	LCU	OIU	0.00	$r\lambda o$	116	OTIL	C 1.3	Olu	ULU	u_{211}	LCU	1111	110	1 a 1	110

<212> PRT

Gly	Gly	Tyr	Pro	Val	Glu	Lys	Phe	Val	Ala	Thr	Met	Tyr	His	Tyr	Leu
			260					265					270		
Gln	Phe	Λla	Tyr	Tyr	Lys	Leu	Asn	Asp	Leu	Lys	Asn	Ala	Ala	Pro	Cys
		275					280					285			
Ala	Val	Ser	Tyr	Leu	Leu	Phe	Asp	Gln	Asn	Asp	Lys	Val	Met	Gln	Gln
	290					295					300				
Asn	Leu	Va1	Tyr	Tyr	Gln	Tyr	His	Arg	Asp	Thr	Trp	Gly	Leu	Ser	Asp
305					310					315					320
Glu	His	Phe	Gln	Pro	Arg	Pro	Glu	Ala	Val	Gln	Phe	Phe	Asn	Val	Thr
				325					330					335	
Thr	Leu	Gln	Lys	Glu	Leu	Tyr	Asp	Phe	Ala	Lys	Glu	Asn	He	Met	Asp
			340					345					350		
Asp	Asp	Glu	Gly	Glu	Val	Val	Glu	Tyr	Val	Asp	Asp	Leu	Leu	Glu	Leu
		355					360					365			
Glu	Glu	Thr	Ser												
	370														

<210> 4292 <211> 230 <212> PRT <213> Homo sapiens

<400> 4292

Met Arg Val Phe Ile Gln Ile Cys Phe Ser Tyr Phe Leu Val Asp Ser Ala Gly Gln Val Val Ala Asn Gln Glu Gly Val Phe Arg Ser Asn Cys Met Asp Cys Leu Asp Arg Thr Asn Val 11e Gln Ser Leu Leu Ala Arg Arg Ser Leu Gln Ala Gln Leu Gln Arg Leu Gly Val Leu His Val Gly Gln Lys Leu Glu Glu Gln Asp Glu Phe Glu Lys Ile Phe Lys Asn Ala Trp Ala Asp Asn Ala Asn Ala Cys Ala Lys Gln Tyr Ala Gly Thr Gly

Ala Leu Lys Thr Asp Phe Thr Arg Thr Gly Lys Arg Thr His Leu Gly 105 Leu lle Met Asp Gly Trp Asn Ser Met Ile Arg Tyr Tyr Lys Asn Asn 120 Phe Ser Asp Gly Phe Arg Gln Asp Ser Ile Asp Leu Phe Leu Gly Asn 130 135 140 Tyr Ser Val Asp Glu Leu Glu Ser His Ser Pro Leu Ser Val Pro Arg 150 155 Asp Trp Lys Phe Leu Ala Leu Pro Ile Ile Met Val Val Ala Phe Ser 165 170 Met Cys Ile lle Cys Leu Leu Met Ala Gly Asp Thr Trp Thr Glu Thr 180 185 Leu Ala Tyr Val Leu Phe Trp Gly Val Ala Ser Ile Gly Thr Phe Phe 200 205 lle lle Leu Tyr Asn Gly Lys Asp Phe Val Asp Ala Pro Arg Leu Val 210 215 220 Gln Lys Glu Lys 11e Asp

<210> 4293

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4293

Met Phe His Leu Gln Pro Arg Glu Ala Gln Lys Ser Ser Ser Ala Leu

1 5 10 15

Glu Val His Lys Lys Tyr Gly Asp Ser Thr Gly Thr Thr Leu Glu Glu 20 25 30

Ala Gln Lys Tle Asn Asn Gly Ser Ser Gln Ala Asp Gly Thr Leu Lys
35 40 45

Pro Val Asp Glu Lys Glu Glu Ala Val Ala Ala Glu Val Gly Trp Met 50 55 60

Thr Ser Val Lys Asp Trp Ala Gly Val Met 11e Ser Ala Gln Thr Leu

Thr Gly Arg Val Leu Val Val Leu Val Phe Ala Leu Ser Ile Gly Ala Leu Val Ile Tyr Phe Ile Asp Ser Ser Lys <210> 4294 <211> 151 <212> PRT <213> Homo sapiens <400> 4294 Met Leu Arg Thr Leu Val Leu Lys Gln Thr Leu Asp Leu Leu Pro Leu Leu Glu Ala Leu Leu Val Leu Gly Val Pro Gln His Leu Glu Leu Gln Pro Leu Pro Val Gln Val Ser Leu Leu Leu Leu Gln Leu Leu Asp Leu Gly Ser Leu Lys Ser His Arg Leu His His Phe His Ser Lys Ala Leu Gln Leu Pro Val Leu Asp His Leu Asp Phe Gln Asp Phe Gln Leu Pro Trp Gln Gln Val Leu Ser Glu Leu Gln Trp Pro Gln Pro Leu Glu Val Ala Val Leu Trp Leu Val Leu Val Val Arg Ala His lle Leu Thr Leu Leu Phe Leu Ser His Pro Val Thr Leu Leu Glu Ile Ala Ala Tyr Pro Leu Cys Gln Pro Gln Ala Ala Ser Leu Gln Gln lle Met Cys Tyr Ser His Pro Glu Ile Asp

<211> 229 <212> PRT <213> Homo sapiens <400> 4295

Met Ala Gln Gly Asp Ala Ala Ala Thr Ala Gly His Ala Gln Leu His Cys Gly His Glu Thr Ser Glu Gly Cys Val Ser Pro Pro Gly Val Thr Val Pro Trp Pro Thr Gln Gly Glu Arg Pro Val Gly Pro Asn Ala Glu Glu Arg Lys Arg Arg Ala Thr Leu Gln Trp Gly Arg Gly Ala Lys Lys Gly Pro Arg Asn Pro Thr Pro Glu Asn Ser Arg Arg Leu Gly Arg Gln Gly Ala Leu Val Gln Glu Arg Ser Phe Lys Lys Phe Gly Ala Arg Arg Ala Leu Asn Ser Pro Val Lys Lys Thr Glu Gln Gln Phe Gly Gly Thr Arg Leu Pro Gly His Asn Gly Arg Thr Glu Ala Arg Asp Arg Glu Pro Leu Arg Arg Pro Thr Pro Leu Thr 11e His Arg Phe Pro Gly Gly Glu Ala Pro Lys His lle Gly Ser Trp Leu Tyr Ser Ala Ala Val Pro Arg Pro Lys Ser Arg Pro Ala Ser Cys Cys Pro His Ser Leu Arg His Arg Pro Leu Thr Ser Ser Pro Arg Ser Ser Gln Ser Cys Cys Gln Leu

Phe Gly Val His Arg Gln Arg Pro 11e Arg Ala Gly Leu Arg Gly Arg
195
200
205
His Ala Ser Glu Gly Arg Lys Arg Gly Gly Gly Arg Val Arg Glu
210
215
220

Pro Arg Arg Leu Gln

<210> 4296 <211> 125 <212> PRT <213> Homo sapiens <400> 4296 Met Cys Pro Arg Leu Ala Glu Val Leu Pro Leu Asn Ala Ala Gly Gln 1 5 10 15 Asp Ala Thr Leu Ser Thr Ile Ser Ser Val Pro Gly 11e Pro Pro Thr 25 His Thr His 11e His Ser Leu Leu Leu Thr Ser Ser His Thr Leu Thr 40 45 His Pro Thr Thr Leu Thr His Phe Gln Asn Pro Pro Thr Leu Thr Leu 55 60 Thr Leu Ala Ser Pro Phe Pro Cys Ser Val Thr Ser Leu Gln Val Pro 70 75 Ala Pro His Ser Leu Leu Gln Ser Gln Pro Pro Trp Cys Gln Pro Ser 90 85 Leu Val Pro Ala Ile Ser Pro Lys Tyr Pro Pro Phe Trp Ala Pro Phe 105 110 Cys Pro Glu Gly Pro Glu Val Ser Leu Gly Ser Thr Cys 120 125 <210> 4297 <211> 188 <212> PRT <213> Homo sapiens <400> 4297 Met lle Ala Cys Arg Ala Leu Thr Val Leu Thr Trp Thr His Val Arg

lle Asp Glu Gly His Val Pro Ala Met Phe Ala Gln Ser Ser Val Phe

25

30

Arg Glu Leu Ile Thr Gly Val Ala Lys Ala Thr Gly Ala Thr His Leu Leu Ser Cys Phe Gln Val Arg Thr Ala Leu Val Trp Ala Ser Glu Thr 50 55 60 Ala Arg Trp Ile Leu Gly Val Leu Ser Phe Glu Arg Ser Leu Ile Tyr 70 75 His Gln Glu Lys Phe Val Ala Phe Ala Ser Ser Ile Gln Pro Arg Ile 85 90 His Ser Ser Val Leu Trp Gly Asn Gln Gly Cys Gly Ser Thr Gln Glu 100 105 110 Ser Cys Arg Pro Arg His Phe Leu Gly Asn Ala Leu Leu Arg Trp Arg 120 125 Pro Ala Ala Cys Pro Gly Pro Glu Gly Ser Gly Ser Val Glu Gln Ser 135 140 Trp Gly Leu Gly Ala Gly Arg Tyr Gly Thr Ser Cys Phe Leu Arg Gly 145 150 155 160 Leu Arg Gly Arg Ala Gly Gly Leu Gly Arg Gly Arg Val Gly Ala lle 170 Asp Met Arg Thr Ser Ser Ser Ser Ser Ala Glu Leu 180 185

<210> 4298

<211> 518

<212> PRT

<213> Homo sapiens

<400> 4298

 Met
 Val
 Gln
 Leu
 Gln
 Tyr
 Arg
 Asp
 Tyr
 Gln
 Arg
 Ala
 Thr
 Gln

 1
 5
 5
 10
 10
 15
 15

 Arg
 Leu
 Ala
 Gly
 11e
 Pro
 Glu
 Leu
 Leu
 Asp
 Leu
 Arg
 Gln
 Ala
 Pro

 Asp
 Phe
 Tyr
 Val
 Glu
 Met
 Lys
 Trp
 Glu
 Phe
 Thr
 Ser
 Trp
 Val
 Pro
 Leu

 Val
 Ser
 Lys
 Pro
 Ser
 Asp
 Val
 Tyr
 Arg
 Val
 Trp
 Lys
 Arg
 Gly

	50					55					60				
G1u 65	Ser	Leu	Arg	Val	Asp	Thr	Ser	Leu	Leu	Gly 75		Glu	His	Met	Thr 80
Trp	Gln	Arg	Gly	Arg 85	Arg	Ser	Phe	lle	Phe 90	Lys	Gly	Gln	Glu	Ala 95	Arg
Ala	Leu	Val	Met	Glu	Val	Asp	His	Asp 105		Gln	Val	Va]	His		Glu
Thr	Leu	Gly 115		Thr	Leu	Gln	Glu 120		Glu	Thr	Leu	Leu 125		Ala	Met
Arg	Pro 130		Glu	Glu	His	Val		Ser	Arg	Leu	Thr 140		Pro	Ile	Val
Ser 145	Thr	His	Leu	Asp	Thr 150	Arg	Asn	Val	Ala	Phe 155	Glu	Arg	Asn	Lys	Cys 160
G1y	lle	Trp	Gly	Trp 165	Arg	Ser	Glu	Lys	Met 170	Glu	Thr	Val	Ser	Gly 175	Tyr
Glu	Ala	Lys	Val 180	Tyr	Ser	Ala	Thr	Asn 185	Val	Glu	Leu	Val	Thr 190	Arg	Thr
Arg	Thr	Glu 195	His	Leu	Ser	Asp	Gln 200	Asp	Lys	Ser	Arg	Ser 205	Lys	Ala	Gly
Lys	Thr 210	Pro	Phe	Gln	Ser	Phe 215	Leu	Gly	Met	Ala	Gln 220	Gln	His	Ser	Ser
His 225	Thr	Gly	Ala	Pro	Val 230	Gln	Gln	Ala	Ala	Ser 235	Pro	Thr	Asn	Pro	Thr 240
Ala	He	Ser	Pro	Glu 245	Glu	Tyr	Phe	Asp	Pro 250	Asn	Phe	Ser	Leu	Glu 255	Ser
Arg	Asn	He	Gly 260	Arg	Pro	He	Glu	Met 265	Ser	Ser	Lys	Val	G1n 270	Arg	Phe
Lys	Ala	Thr 275	Leu	Trp	Leu	Ser	Glu 280	Glu	His	Pro	Leu	Ser 285	Leu	Gly	Asp
	Val 290	Thr	Pro	lle	lle	Asp 295	Leu	Met	Ala	He	Ser 300	Asn	Ala	His	Phe
Ala 305	Lys	Leu	Arg	Asp	Phe 310	lle	Thr	Leu	Arg	Leu 315	Pro	Pro	G1 y	Phe	Pro 320
Val	Lys	He	Glu	T1e 325	Pro	Leu	Phe	His	Val 330	Leu	Asn	Λla	Arg	He 335	Thr
Phe	Ser	Asn	Leu	Cvs	G1v	Cve	Asn	Glu	Pro	Lou	Sor	Sor	Val	Tro	Vol.

			340					345					350		
Pro	Ala	Pro	Ser	Ser	Ala	Val	Ala	Ala	Ser	Gly	Asn	Ser	Phe	Pro	Cys
		355					360					365			
Glu	Val	Asp	Pro	Thr	Val	Phe	Glu	Val	Pro	Asn	Gly	Tyr	Ser	Val	Leu
	370		•			375					380				
Gly	Met	Glu	Arg	Asn	Glu	Pro	Leu	Arg	Asp	Glu	Asp	Asp	Asp	Leu	Leu
385					390					395					400
Gln	Phe	Ala	He	Gln	Gln	Ser	Leu	Leu	Glu	Λla	Gly	Thr	Glu	Ala	Glu
				405					410					415	
Gln	Val	Thr	Val	Trp	Glu	Ala	Leu	Thr	Asn	Thr	Arg	Pro	Gly	Ala	Arg
			420					425					430		
Pro	Pro	Pro	Gln	Ala	Thr	Val	Tyr	Glu	Glu	Gln	Leu	Gln	Leu	Glu	Arg
		435					440					445			
Ala	Leu	Gln	Glu	Ser	Leu	Gln	Leu	Ser	Thr	Glu	Pro	Arg	Gly	Pro	Gly
	450					455					460				
Ser	Pro	Pro	Arg	Thr	Pro	Pro	Ala	Pro	Gly	Pro	Pro	Ser	Phe	Glu	Glu
465					470					475					480
Gln	Leu	Arg	Leu	Ala	Leu	Glu	Leu	Ser	Ser	Arg	Glu	Gln	Glu	Glu	Arg
				485					490					495	
Glu	Arg	Arg	Gly	Gln	Gln	Glu	Glu	Glu	Tyr	Leu	Gln	Arg	lle	Leu	Gln
			500					505					510		
Leu	Ser	Leu	Thr	Glu	His										
		515													

<210> 4299

<211> 163

<212> PRT

<213> Homo sapiens

<400> 4299

Met Pro Gly Val Ser Val Ala Ile Arg Leu Ser Tyr Phe Leu Pro Leu I 5 5 10 Leu Leu Pro I 15 Lys Leu Pro Pro Asn Thr Pro Gly Gly Leu Leu Pro Trp Ser Thr Leu 20 25 30 Ala His Pro Leu Arg Asp Pro Arg Ala Ser Gly Gly Tyr Leu Val Glu

35 40 45 Lys Arg Pro Ser Pro Ser Asp Ala Phe Pro Ser Trp Arg Cys Ser Gly 50 55 60 Ala Trp Cys His Ala Gly Gly Gly Arg Gly Cys Arg Gly Ala His Ala 65 70 75 80 Trp Cys Pro Thr Ser Leu Val Leu Val Ser Ser Pro Asn Pro Thr Arg 90 Gly Leu Ser Leu Val Trp Asp Arg Leu Gly Lys Cys Gly Ala Ser Met 105 110 Ala Glu Ala Trp Leu Phe Glu Gly Val Thr Leu Gln Ser Leu Ser Gln 115 120 125 Gly Trp Gly Trp Pro Cys Gly Pro Gly Val Ala Glu Ser Gly Thr Gly 135Val Gln Pro Ser Pro Thr Leu Trp Trp Ser Gly Ala Val Thr Ala Leu 145 150 155 160 Glu Pro Phe

<210> 4300

<211> 154

<212> PRT

<213> Homo sapiens

<400> 4300

Met Val Ala Arg Leu Pro Thr Pro Lys Leu Pro Arg Trp Leu Arg Val

1 5 10 15

Leu Thr Pro Arg Thr Pro Thr Pro Phe Cys Gly Pro Ser Ala Arg Trp
20 25 30

Val Ala His Pro Asp Trp Ala Val Gly Ser Pro Leu Pro Arg Arg Gly
35 40 45

Gly Thr Arg Gly Arg His Ala Ala Ala Gly Ala Gly Glu Thr Thr Glu 50 55 60

Lys Glu Pro Ala Gly Gly Arg Lys Arg Pro Arg Pro Arg Pro Met Ala
65 70 75 80

Ala Gln Ser Leu Asp Arg Gly Phe Leu Glu Gly Ala Trp Asp Pro Cys

90 85 95 Cys His Cys Leu Arg Leu Gly Ile His Ser Arg Leu Leu Asp Pro Ser 105 Leu Gln Pro Arg Trp Asp Pro Cys Leu Leu Pro Leu Leu Pro Leu Ala 115 120 125 Pro Gly Arg Gly Arg Ala Glu Glu Thr Ser Leu Glu Gln Pro Ser Ala 135 140 Thr His Arg Gln Phe Pro Arg Arg Gly Gly 150 <210> 4301 <211> 155 <212> PRT <213> Homo sapiens <400> 4301 Met Leu Gly Cys Phe Met Asp Leu Leu Ser Ile Leu Met Ile Gln Asp 1 10 lle Leu Ser Met Pro Val Leu Phe Ser Leu Gly Leu Cys Phe His Ser 20 25 Lys Leu Leu Arg Cys Ser Pro Asn Pro Gly Glu Asn Lys Ile His Tyr 40 Gln 11e Gln Gln Val Gln Pro Ser Trp Ser Ser Leu Arg Ser His Arg 50 55 60 Val Ala Pro Trp Asn Asp Ala Ser Leu Cys Gln Gly Pro Pro Phe Gly 75 lle Gly Arg Val Leu Gly Arg lle Leu His Leu Gln Arg Pro Leu Gly 85 90 Ser Leu Arg Ser Gly Gly Gly Trp Thr Gln Lys Gly Arg Leu Asn Thr 100 105 Arg Trp Gly Arg Lys Asn Val Thr Ile Gly Ser Gln Thr Glu Ala Ser 120 Pro Leu Lys Tyr Gly Val Gly Gly Leu Thr Ser Ala Leu Trp Asn Val 130 135 140

Leu Ser Asp Cys Cys Arg Val Pro Gly Pro Pro

145 150 155

<210> 4302

<211> 443

<212> PRT

<213> Homo sapiens

<400> 4302

Met Ser Gln Arg Asp Gly Val Cys Gly Ser His Glu Val Ala Gly Ala 1 Ser Pro Gly Ala Asp Gly Gly Leu Ser Leu Ala Ala Tyr Cys Lys Asp Ser Val Asp Gly Leu Trp Tyr Cys Phe Asp Asp Ser Asp Val Gln

35 40 45

Gln Leu Ser Glu Asp Glu Val Cys Thr Gln Thr Ala Tyr lle Leu Phe 50 55 60

Tyr Gln Arg Arg Thr Ala lle Pro Ser Trp Ser Ala Asn Ser Ser Val 65 70 75 80

Ala Gly Ser Thr Ser Ser Ser Leu Cys Glu His Trp Val Ser Arg Leu 85 90 95

Pro Gly Ser Lys Pro Ala Ser Val Thr Ser Ala Ala Ser Ser Arg Arg 100 105 110

Thr Ser Leu Ala Ser Leu Ser Glu Ser Val Glu Met Thr Gly Glu Arg 115 120 125

Ser Glu Asp Asp Gly Gly Phe Ser Thr Arg Pro Phe Val Arg Ser Val 130 135 140

Gln Arg Gln Ser Leu Ser Ser Arg Ser Ser Val Thr Ser Pro Leu Ala 145 150 155 160

Val Asn Glu Asn Cys Met Arg Pro Ser Trp Ser Leu Ser Ala Lys Leu 165 170 175

Gln Met Arg Ser Asn Ser Pro Ser Arg Phe Ser Gly Asp Ser Pro Ile 180 185 190

His Ser Ser Ala Ser Thr Leu Glu Lys Ile Gly Glu Ala Ala Asp Asp 195 200 205

Lys Val Ser Ile Ser Cys Phe Gly Ser Leu Arg Asn Leu Ser Ser Ser

	210					215					220				
Tyr	Gln	Glu	Pro	Ser	Asp	Ser	His	Ser	Arg	Arg	Glu	His	Lys	Ala	Val
225					230					235					240
G1 y	Arg	Ala	Pro	Leu	Ala	Val	Met	Glu	G1 y	Val	Phe	Lys	Asp	Glu	Ser
				245					250					255	
Asp	Thr	Arg	Arg	Leu	Asn	Ser	Ser	Val	Val	Asp	Thr	Gln	Ser	Lys	His
			260					265					270		
Ser	Ala	Gln	Gly	Asp	Arg	Leu	Pro	Pro	Leu	Ser	Gly	Pro	Phe	Asp	Asn
		275					280					285			
Asn	Asn	Gln	Ile	Ala	Tyr	Val	Asp	Gln	Ser	Asp	Ser	Val	Asp	Ser	Ser
	290					295					300				
Pro	Val	Lys	Glu	Val	Lys	Ala	Pro	Ser	His	Pro	Gly	Ser	Leu	Ala	Lys
305					310					315					320
Lys	Pro	Glu	Ser	Thr	Thr	Lys	Arg	Ser	Pro	Ser	Ser	Lys	Gly	Thr	Ser
				325					330					335	
Glu	Pro	Glu	Lys	Ser	Leu	Arg	Lys	Gly	Arg	Pro	Ala	Leu	Ala	Ser	Gln
			340					345					350		
Glu	Ser	Ser	Leu	Ser	Ser	Thr	Ser	Pro	Ser	Ser	Pro	Leu	Pro	Val	Lys
		355					360					365			
Val	Ser	Leu	Lys	Pro	Ser	Arg	Ser	Arg	Ser	Lys	Ala	Asp	Ser	Ser	Ser
	370					375					380				
Arg	Gly	Ser	Gly	Arg	His	Ser	Ser	Pro	Ala	Pro	Ala	Gln	Thr	Gln	Phe
385					390					395					400
Pro	Ser	Gly	Glu	Pro	Gly	Pro	Ser	Arg	Gly	Gly	Gln	Gly	Gly	Arg	Glu
				405					410					415	
Ala	Arg	Ala	Glu	Leu	Leu	His	G1 y	Gln	Pro	Ala	Leu	Pro	Gln	His	Lys
			420	•				425					430		
His	G1n	Val	Trp	Phe	Glu	Glu	Gly	Gln	Gln	Va]					
		435					440								

<210> 4303

<211> 156

<212> PRT

<213> Homo sapiens

<400> 4303 Met Tyr Thr Ser Leu His Thr Gln Ile Pro Glu Asn Gly Ile Ala Gly 5 10 Leu Tyr Asp Asn Phe Ile Phe Leu Phe Phe Leu Arg Gln Asp Leu Phe 20 25 30 Leu Ser Pro Arg Leu Gly Cys Gly Gly Ala Ile Met Ala His Cys Ser 40 45 Leu Asp 11e Leu Gly Ser Ser Asn Pro Pro Ile Ser Ala Ser Gln Val 55 60 Ala Gly Thr Thr Gly Thr Cys His Tyr Thr Trp Leu Ile Phe Val Phe 75 Phe Val Glu Val Gly Ser Pro Tyr Phe Ser Gln Ala Gly Leu Lys Leu 85 90 Leu Ser Ser Asp Asn Ser Leu Thr Ser Ala Ser Gln Ser Val Gly 11e 100 105 110 lle Gly Met Ile His His Thr Gln Pro Tyr Leu Ile Phe Asn Ile Leu 120 125 Gly Asn Leu Tyr Pro Asn Phe Leu Gly Gly Cys Ile Ile Leu Phe Tyr 135 140 Gln Gln Cys Met Gly Val Pro Asn Ala Leu His Pro 145 150 155

<210> 4304

<211> 172

<212> PRT

<213> Homo sapiens

<400> 4304

 Met
 Ser
 Ser
 Gly
 Asn
 Tyr
 Gln
 Gln
 Ser
 Glu
 Ala
 Leu
 Ser
 Leu
 Leu
 Ser
 Leu
 Ser
 He
 Ser
 Ser
 Leu
 Ser
 Glu
 Ser
 Ser
 Leu
 Ser
 Se

His Val Tyr Val Ser Lys Thr Lys Asp Gly Pro Thr Glu Tyr Val Leu

50 55 60 Lys Ile Ser Asn Thr Lys Ala Ser Lys Asn Pro Asp Leu Ile Glu Val 70 75 Gln Asn His Ile Ile Met Phe Leu Lys Ala Ala Gly Phe Pro Thr Ala 90 85 Ser Val Cys His Thr Lys Gly Asp Asn Thr Ala Ser Leu Val Ser Val 100 105 Asp Ser Gly Ser Glu lle Lys Ser Tyr Leu Val Arg Leu Leu Thr Tyr 115 120 125 Leu Pro Gly Arg Pro 11e Ala Glu Leu Pro Val Ser Pro Gln Leu Leu 130 135 140 Tyr Glu Ile Gly Lys Leu Ala Ala Lys Leu Asp Lys Thr Leu Gln Glu 150 155 Gly Lys Pro Arg Val Thr Pro Leu Leu Ala Lys Asn 170

<210> 4305

<211> 150

<212> PRT

<213> Homo sapiens

<400> 4305

 Met Leu Gln Phe Pro Leu Asp Leu Ala Val Gln Asn Val Val Cys Pro

 1
 5
 10
 15

 Val Ser Val Thr Glu Arg Gly Phe Pro Ser Leu Phe Phe Cys Gln Tyr
 20
 25
 30

 Ser Ala Asp Leu Trp Asn He Gly He Ser Val Phe He Gln Asp Gly
 45

 Pro Phe Leu Val Val Arg Leu He Leu Met Thr Tyr Phe Lys Val He
 55
 60

Asn Gln Met Leu Val Phe Phe Ala Ala Lys Asn Phe Leu Val Val Val 65 70 75 80

Leu Gln Leu Tyr Arg Leu Val Val Leu Ala Leu Ala Val Arg Ala Ser 85 90 95

Leu Arg Ser Gln Ser Glu Gly Leu Lys Gly Glu His Gly Cys Arg Ala

105 110 100 Gln Thr Ser Glu Ser Gly Pro Ser Gln Arg Asp Trp Gln Asn Glu Ser 125 120 Lys Glu Gly Leu Ala 11e Pro Leu Arg Gly Ser Pro Val Thr Ser Asp 130 135 140 Asp Ser His His Thr Pro <210> 4306 <211> 803 <212> PRT <213> Homo sapiens <400> 4306 Met Ala Glu Arg Gly Gly Asp Gly Gly Glu Ser Glu Arg Phe Asn Pro 10 Gly Glu Leu Arg Met Ala Gln Gln Gln Ala Leu Arg Phe Arg Gly Pro 20 Ala Pro Pro Pro Asn Ala Val Met Arg Gly Pro Pro Pro Leu Met Arg Pro Pro Pro Pro Phe Gly Met Met Arg Gly Pro Pro Pro Pro Pro Arg 50 55 Pro Pro Phe Gly Arg Pro Pro Phe 11e Leu 11e Cys Arg Gln Tyr Leu 70 75 Gln Arg Pro Pro Phe Met Pro Pro Pro Met Ser Ser Met Pro Pro Pro 85 90 Pro Gly Met Met Phe Pro Pro Gly Met Pro Pro Val Thr Ala Pro Gly 100 105 110 Thr Pro Ala Leu Pro Pro Thr Glu Glu Ile Trp Val Glu Asn Lys Thr 120 Pro Asp Gly Lys Val Tyr Tyr Asn Ala Arg Thr Arg Glu Ser Ala

135

Trp Thr Lys Pro Asp Gly Val Lys Val 11e Gln Gln Ser Glu Leu Thr

140

145					150					155					160
Pro	Met	Leu	Ala	Ala	Gln	Ala	Gln	Va]	Gln	Ala	Gln	Ala	Gln	Ala	Gln
				165					170					175	
Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln
			180					185					190		
Ala	Gln	Ala	GIn	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln
		195					200					205			
Ala	Gln	Ala	Gln	Ala	Gln	Ala	Gln	Ala	G1n	Ala	Gln	Ala	Gln	Ala	Gln
	210					215					220				
Ala	Gln	Ala	Gln	Val	G1n	Ala	GIn	Val	Gln	Ala	Gln	Val	Gln	Ala	Gln
225					230					235					240
Ala	Val	Gly	Ala	Ser	Thr	Pro	Thr	Thr	Ser	Ser	Pro	Ala	Pro	Ala	Val
				245					250					255	
Ser	Thr	Ser	Thr	Ser	Ser	Ser	Thr	Pro	Ser	Ser	Thr	Thr	Ser	Thr	Thr
			260					265					270		
Thr	Thr	Ala	Thr	Ser	Val	Ala	Gln	Thr	Val	Ser	Thr	Pro	Thr	Thr	Gln
		275					280					285			
Asp	Gln	Thr	Pro	Ser	Ser	Ala	Val	Ser	Val	Ala	Thr	Pro	Thr	Val	Ser
	290					295					300				
Val	Ser	Thr	Pro	Ala	Pro	Thr	Ala	Thr	Pro	Val	Gln	Thr	Val	Pro	Gln
305					310					315					320
Pro	His	Pro	G1n	Thr	Leu	Pro	Pro	Ala	Val	Pro	His	Ser	Val	Pro	Gln
				325					330					335	
Pro	Thr	Thr	Ala	Пе	Pro	Ala	Phe	Pro	Pro	Val	Met	Val	Pro	Pro	Phe
			340					345					350		
Arg	Val	Pro	Leu	Pro	Gly	Met	Pro	Пе	Pro	Leu	Pro	Gly	Val	Leu	Pro
		355					360					365			
Gly		Ala	Pro	Pro	He		Pro	Met	lle	His		G1n	Val	Ala	He
	370	_				375					380				
	Ala	Ser	Pro	Ala		Leu	Ala	Gly	Ala		Ala	Val	Ser	Glu	
385	C I	T		T)	390		0.1		an i	395					400
Inr	GJU	Tyr	Lys		Ala	Asp	GIy	Lys		Tyr	lyr	Tyr	Asn		Arg
ть	1 .	C1	C	405	т			13	410	6.1			0.7	415	0.1
1111	Leu	Glu		ınr	rp	Lys	Lys		GIn	61u	Leu	Lys		Lys	Glu
Lvc	Lou	Glu	420	Lva	11.	Lus	C1	425 Date	11 -	1	C1	D	430	C1	C1
LYD	してい	$\sigma_{1}u$	u	L- V-S	116	LVS	$\sigma_{1}u$	$\Gamma \Gamma O$	116	LVS	triu	$\Gamma\Gamma$	ser	OTU	OHI

		435					440					445			
Pro	He	Lys	Glu	lle	Lys	Glu	Glu	Pro	Lys	Glu	Glu	Glu	Met	Thr	Glu
	450					455					460				
Glu	Glu	Lys	Ala	Ala	Gln	Lys	Ala	Lys	Pro	Val	Ala	Thr	Ala	Pro	He
465					470					475					480
Pro	Gly	Thr	Pro	Trp	Cys	Val	Val	Trp	Thr	Gly	Asp	Glu	Arg	Val	Phe
				485					490					495	
Phe	Tyr	Asn	Pro	Thr	Thr	Arg	Leu	Ser	Met	Trp	Asp	Arg	Pro	Asp	Asp
			500					505					510		
Leu	He	Gly	Arg	Ala	Asp	Val	Asp	Lys	lle	He	Gln	Glu	Pro	Pro	His
		515					520					525			
Lys	Lys	Gly	Met	Glu	Glu	Leu	Lys	Lys	Leu	Arg	His	Pro	Thr	Pro	Thr
	530					535					540				
Met	Leu	Ser	He	G}n	Lys	Trp	Gln	Phe	Ser	Met	Ser	Ala	He	Lys	Glu
545					550					555					560
Glu	Gln	Glu	Leu	Met	Glu	Glu	He	Asn	Glu	Asp	Glu	Pro	Val	Lys	Ala
				565					570					575	
Lys	Lys	Arg		Arg	Asp	Asp	Asn	Lys	Asp	He	Asp	Ser	Glu	Lys	Glu
			580					585					590		
Ala	Ala		Glu	Ala	Glu	He		Ala	Ala	Arg	Glu		Ala	He	Val
		595					600					605			
Pro		Glu	Ala	Arg	Met		Gln	Phe	Lys	Asp		Leu	Leu	Glu	Arg
0.1	610					615					620				
	Vai	Ser	Ala	Phe		Thr	Trp	GIu	Lys		Leu	His	Lys	He	
625	Δ	D.		т	630				Б	635	0.1				640
rne	Asp	Pro	Arg		Leu	Leu	Leu			Lys	Glu	Arg	Lys	G1n	Val
Dho	Aan	Cln.	Tun	645	Luc	Tlore	Λ		650	<i>C</i> 1	C1	Α		655	,
He	nsp	0111	660	val	LyS	Inr	Arg		GIU	GJU	GIU	Arg	Arg 670	G] u	Lys
Luc	Acn	lve		Mot	Cln	410	Lua	665	Aous	Dl _{o e}	1	1		M - 4	C1
Lys	лы	675	116	мес	OIH	ліа	680	Gru	Asp	rne	LyS		мет	Met	GIU
Glu	Ala		Phe	Aen	Pro	Ana		The	Pho	Sar	Clu	685	Ale	Ala	Luc
oru	690	Lys	1116	non	110	695	діа	1111	тпе	ser	700	гие	MIA	Ala	LyS
His		Lvs	Asn	Ser	Ara		Lve	Ala	Па	Clu		Mot	lve	Asp	Ara
705	u	2,3	чот.	J (.)	710	1116	Lys	1110	116	715	1. y 5	mer t	rî.2	nəb	720
	Ala	Leu	Phe	Asn		Phe	Val	Ala	Als		Arc	Lve	lve	Glu	

725 730 735 Glu Asp Ser Lys Thr Arg Gly Glu Lys Ile Lys Ser Asp Phe Phe Glu 740 745 Leu Leu Ser Asn His His Leu Asp Ser Gln Ser Arg Trp Ser Lys Val 755 760 765 Lys Asp Lys Val Glu Ser Asp Pro Arg Tyr Lys Thr Val Asp Ser Ser 775 780 Ser Met Arg Glu Asp Leu Phe Lys Gln Tyr 11e Glu Lys 11e Ala Lys 790 795 800 Asn Leu Asp

<210> 4307

<211> 199

<212> PRT

<213> Homo sapiens

<400> 4307

Met Lys Ser Trp Leu Leu Arg Leu His Ser Glu Leu Glu His Asn Thr 1 5 10 15

Thr Leu Phe Cys Glu Ser His Cys Pro Ser Leu Ala Leu Gly Ser Phe 20 25 30

Cys Arg Leu Leu Leu Gly Pro Leu Thr Cys Pro His Gln Gln Thr Phe

35 40 45

His Phe Gly Ala Arg Pro Asp Phe Leu Ala Leu Gln Gly Ala Pro Gly
50 55 60

Ser Phe Ile Pro Cys Pro Gly Pro Gly Ile Ser Pro Phe Ser Arg Val 65 70 75 80

Leu Trp Val Leu Thr Glu Tyr Trp Gly Pro Arg Pro Gly Cys Trp Val 85 90 95

Gly Ser Ala Leu lle Ala Pro Gly Phe Gln Leu Thr Glu His Gly Cys 100 105 110

Thr Cys Pro Asp Thr Trp Arg His Leu Cys Pro Cys Pro Leu Ser Pro 115 120 125

Gln Asp Pro Trp Ser Ser Pro Ser Leu Gly Arg Lys Pro Arg Gly Gly

130 135 140 Gly Pro Gly Pro Gln Gly Cys Trp Glu Asp Met Gly Pro Val Cys Leu 150 155 Gln Leu Gly Gly Leu Gly Gly Ala Gly Asp Thr Arg Pro Gly Ala Gly 165 170 Gly Ala Gln Leu Arg Gly Arg Arg Gly Leu Asp Glu Gly Gly 185 190 Val Gln Trp Glu Gly Pro Cys 195 <210> 4308 <211> 168 <212> PRT <213> Homo sapiens <400> 4308 Met Tyr Arg Val Met Trp Arg Glu Val Arg Arg Glu Val Gln Gln Thr 10 His Ala Val Cys Cys Gln Gly Trp Lys Lys Arg His Pro Gly Ala Leu 20 25 30 Thr Cys Glu Ala lle Cys Ala Lys Pro Cys Leu Asn Gly Gly Val Cys 40 Val Arg Pro Asp Gln Cys Glu Cys Ala Pro Gly Trp Gly Gly Lys His 50 55 60 Cys His Val Asp Val Asp Glu Cys Arg Thr Ser Ile Thr Leu Cys Ser 70 75 His His Cys Phe Asn Thr Ala Gly Ser Phe Thr Cys Gly Cys Pro His 90 Asp Leu Val Leu Gly Val Asp Gly Arg Thr Cys Met Glu Gly Ser Pro 100 105 110 Glu Pro Pro Thr Ser Ala Ser Ile Leu Ser Val Ala Val Arg Glu Ala 120 Glu Lys Asp Glu Arg Ala Leu Lys Gln Glu 11e His Glu Leu Arg Gly 130 135

Arg Leu Glu Arg Leu Glu Gln Val Ser Gln Ala Cys Trp Val Gly Arg

145 150 155 160
Gly Gln Thr Ser Leu Ser Ile Pro
165

<210> 4309

<211> 148

<212> PRT

<213> Homo sapiens

<400> 4309

Met Ser Leu Leu Gly Pro Lys Val Leu Leu Phe Leu Ala Ala Phe Ile 1 5 10 15

11e Thr Ser Asp Trp 11e Pro Leu Gly Val Asn Ser Gln Arg Gly Asp
20 25 30

Asp Val Thr Gln Ala Thr Pro Glu Thr Phe Thr Glu Asp Pro Asn Leu 35 40 45

Val Asn Asp Pro Ala Thr Asp Glu Thr Glu Cys Trp Asp Glu Lys Phe
50 55 60

Thr Cys Thr Arg Leu Tyr Ser Val His Arg Pro Val Lys Gln Cys 11e 65 70 75 80

His Gln Leu Cys Phe Thr Ser Leu Arg Arg Met Tyr lle Val Asn Lys 85 90 95

Glu Ile Cys Ser Arg Leu Val Cys Lys Glu His Glu Ala Met Lys Asp 100 105 110

Glu Leu Cys Arg Gln Met Ala Gly Leu Pro Pro Arg Arg Leu Arg Arg 115 120 125

Ser Asn Tyr Phe Arg Leu Pro Pro Cys Glu Asn Val Asp Leu Gln Arg 130 135 140

Pro Asn Gly Leu

145

<210> 4310

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4310

Met Glu Leu Trp Gly Arg Met Leu Trp Ala Leu Leu Ser Gly Pro Gly

1 5 10 15

Arg Arg Gly Ser Thr Arg Gly Trp Ala Phe Ser Ser Trp Gln Pro Gln
20 25 30

Pro Pro Leu Ala Gly Leu Ser Ser Ala Ile Glu Leu Val Ser His Trp 35 40 45

Thr Gly Val Phe Glu Lys Arg Gly Ile Pro Glu Ala Arg Glu Ser Ser 50 55 60

Glu Tyr 11e Val Ala His Val Leu Gly Ala Lys Thr Val Lys Phe Ser
65 70 75 80

Val Val Lys Arg Thr Gly Arg Gly Arg Glu Asp Leu Gly Lys Gly
85 90 95

Tyr Pro Gly Phe Leu Phe Thr Lys Ser Ala 100 105

<210> 4311

<211> 102

<212> PRT

<213> Homo sapiens

<400> 4311

Met Leu Leu Ala Gln Glu Glu Glu Glu Cys Arg Arg Glu Leu Leu Ser

Trp Val Pro Val Pro Gln Pro Pro Arg Glu Ser Cys Leu Asp Leu Leu 20 25 30

Val Asp Gln Pro His Ser Leu Leu Ser He Leu Asp Ala Gln Thr Trp 35 40 45

Leu Ser Gln Ala Thr Asp His Thr Phe Leu Gln Arg Ser His Tyr His 50 55 60

His Gly Asp His Pro Ser Tyr Ala Lys Pro Arg Leu Pro Leu Pro Val 65 70 75 80

Phe Thr Val Arg His Tyr Ala Gly Thr Val Thr Tyr Gln Val Pro Gly

85 90 95

Leu Arg Asp Arg Pro Gly
100

<210> 4312

<211> 388

<212> PRT

<213> Homo sapiens

<400> 4312

Met Asp Lys Arg Val Lys Lys Leu Pro Leu Met Ala Leu Ser Thr Thr

1 5 10 15

Met Ala Glu Ser Phe Lys Glu Leu Asp Pro Asp Ser Ser Met Gly Lys
20 25 30

Ala Leu Glu Met Ser Cys Ala Ile Gln Asn Gln Leu Ala Arg Ile Leu 35 40 45

Ala Glu Phe Glu Met Thr Leu Glu Arg Asp Val Leu Gln Pro Leu Ser 50 55 60

Arg Leu Ser Glu Glu Glu Leu Pro Ala IIe Leu Lys His Lys Lys Ser
65 70 75 80

Leu Gln Lys Leu Val Ser Asp Trp Asn Thr Leu Lys Ser Arg Leu Ser

85 90 95

Gln Ala Thr Lys Asn Ser Gly Ser Ser Gln Gly Leu Gly Gly Ser Pro 100 105 110

Gly Ser His Ser His Thr Thr Met Ala Asn Lys Val Glu Thr Leu Lys
115 120 125

Glu Glu Glu Glu Leu Lys Arg Lys Val Glu Gln Cys Arg Asp Glu 130 135 140

Tyr Leu Ala Asp Leu Tyr His Phe Val Thr Lys Glu Asp Ser Tyr Ala 145 150 155 160

Asn Tyr Phe Ile Arg Leu Leu Glu Ile Gln Ala Asp Tyr His Arg Arg 165 170 175

Ser Leu Ser Ser Leu Asp Thr Ala Leu Ala Glu Leu Arg Glu Asn His 180 185 190

Gly	Gln		Asp	His	Ser	Pro		Met	Thr	Ala	Thr		Phe	Pro	Arg
		195					200					205			
Val		Gly	Val	Ser	Leu	Ala	Thr	His	Leu	G]n	Glu	Leu	Gly	Arg	G] u
	210					215					220				
He	Ala	Leu	Pro	He	Glu	Ala	Cys	Val	Met	Met	Leu	Leu	Ser	Glu	Gly
225					230					235					240
Met	Lys	Glu	Glu	Gly	Leu	Phe	Arg	Leu	Ala	Ala	Gly	Ala	Ser	Val	Leu
				245					250					255	
Lys	Arg	Leu	Lys	Gln	Thr	Met	Ala	Ser	Asp	Pro	His	Ser	Leu	Glu	Glu
			260					265					270		
Phe	Cys	Ser	Asp	Pro	His	Ala	Val	Ala	Gly	Ala	Leu	Lys	Ser	Tyr	Leu
		275					280					285			
Arg	Glu	Leu	Pro	Glu	Pro	Leu	Met	Thr	Phe	Asp	Leu	Tyr	Asp	Asp	Trp
	290					295					300				
Met	Arg	Ala	Ala	Ser	Leu	Lys	Glu	Pro	Gly	Ala	Arg	Leu	Gln	Ala	Leu
305					310					315					320
Gln	Glu	Val	Cys	Ser	Arg	Leu	Pro	Pro	Glu	Asn	Leu	Ser	Asn	Leu	Arg
				325					330					335	
Tyr	Leu	Met	Lys	Phe	Leu	Ala	Arg	Leu	Ala	Glu	Glu	Gln	Glu	Val	Asn
			340					345					350		
Lys	Met	Thr	Pro	Ser	Asn	He	Ala	Πe	Val	Leu	G1y	Pro	Asn	Leu	Leu
		355					360					365			
Trp	Pro	Pro	Glu	Lys	Glu	G1y	Thr	Glu	Pro	Ala	Arg	Glu	Leu	Gly	Ser
	370					375					380				
G1n	Thr	Leu	Cys												
385															
<210	> 43	313													
<211	> 14	10													
<212	?> PF	RT.	•												
<213	5> Hc	omo s	sapie	ens											

Met Trp Pro Phe Arg Leu Arg Cys Pro 11e Tyr Phe Lys Thr Arg Leu

10

15

<400> 4313

Leu Tyr Ser Ser Ser Gln Asp Gly Phe Leu Ser Ser Ser Thr Asn Tyr 25 Tyr Asn His Arg Thr Tyr Pro Gly Leu Val Asn Trp Leu Phe Val Leu 40 45 Thr Glu Pro Glu Leu Thr Gly Glu Leu Gly Asp Asp Asp Arg Lys Gly 55 Met His Thr Gly Gly Ile Ile Arg Trp Leu Gly Arg Pro Ser Ser Gln 70 75 Leu Lys Pro Ile Phe His Ala Glu Glu Arg Arg Val Pro Pro Pro 85 90 95 Glu Arg Leu Val Gly Arg Ala Ser Pro Arg Glu Gln Ala Thr Val Phe 105 110 Lys Arg Ile Cys Ala Pro Leu His Ala Glu Val Phe Cys Arg Ala Gly 120 115 125 Leu Cys Ala Cys His Pro Asp Cys Thr Ala Ala Gly 130 135 140

<210> 4314

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4314

 Met
 Cys
 Arg
 Leu
 Arg
 Glu
 Thr
 Ala
 Leu
 Ala
 Val
 Pro
 Gly
 Pro
 Pro</th

Tyr Arg Ser Thr Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg

75

80

Asp Gly Val Ser Leu Cys Trp Pro Gly Trp Ser Pro Thr Pro Asp Leu Gly <210> 4315 <211> 379 <212> PRT <213> Homo sapiens <400> 4315 Met Pro Lys His Pro Asn Ser Leu Ser Gly Lys Gly Thr Gln Leu Val Pro Ser Ser His Leu Pro Pro Pro Lys Leu Arg Ile Pro Asn Val Phe Ser Ile Ser Val Ala Leu Ala Lys Arg His Leu Ser Gln Pro Gln Leu Ser Ser Asp Arg Met Phe Gly Thr Asn Arg Asn Ala lle Ser Met lle Arg Pro Leu Arg Pro Gln Glu Thr Asp Leu Asp Leu Val Asp Gly Asp Ser Thr Glu Val Leu Glu Asn Met Asp Thr Ser Cys Asp Asp Gly Leu Phe Ser Tyr Asp Ser Leu Asp Ser Pro Asn Ser Asp Asp Gln Glu His Cys Asp Ser Ala Lys Lys Val Ala Tyr Ser Lys Pro Pro Thr Pro Pro Leu His Arg Phe Pro Ser Trp Glu Ser Arg lle Tyr Ala Val Ala Lys Ser Gly lle Arg Met Ser Glu Ala Phe Asn Met Glu Ser Val Asn Lys Asn Ser Ala Ala Thr Leu Ser Tyr Thr Thr Ser Gly Leu Tyr Thr Ser

Leu lle Tyr Lys Asn Met Thr Thr Pro Val Tyr Thr Thr Leu Lys Gly

			180					185					190		
Lys	Ala	Thr	Gln	He	Ser	Ser	Ser	Pro	Phe	Leu	Asp	Asp	Ser	Ser	Gly
		195					200					205			
Ser	Glu	Glu	Glu	Asp	Ser	Ser	۸rg	Ser	Ser	Ser	Arg	Thr	Ser	Glu	Ser
	210					215					220				
Asp	Ser	Arg	Ser	Arg	Ser	Gly	Pro	Gly	Ser	Pro	Arg	Ala	Met	Lys	Arg
225					230					235					240
Gly	Val	Ser	Leu	Ser	Ser	Val	Ala	Ser	Glu	Ser	Asp	Tyr	Ala	He	Pro
				245					250					255	
Pro	Asp	Ala	Tyr	Ser	Thr	Asp	Thr	Glu	Tyr	Ser	Gln	Pro	Glu	Gln	Lys
			260					265					270		
Leu	Pro	Lys	Thr	Cys	Ser	Ser	Ser	Ser	Asp	Asn	Gly	Lys	Asn	Glu	Pro
		275					280					285			
Leu	Glu	Lys	Ser	Gly	Tyr	Leu	Leu	Lys	Met	Ser	Gly	Lys	Val	Lys	Ser
	290					295					300				
Trp	Lys	Arg	Arg	Trp	Phe	Val	Leu	Lys	Gly	Gly	Glu	Leu	Leu	Tyr	Tyr
305					310					315					320
Lys	Ser	Pro	Ser	Asp	Val	He	Arg	Lys	Pro	Gln	Gly	His	Ile	Glu	Leu
				325					330					335	
Ser	Ala	Ser	Cys	Ser	He	Leu	Arg	Gly	Asp	Asn	Lys	Gln	Thr	Val	Gln
			340					345					350		
Va]	Leu	Asn	Phe	Leu	Tyr	His	Ala	Arg	Leu						
		355					360					365			
Asn	Ser	Gln	Leu	Ser	Asn	Leu	Met	Glu	Arg	Arg					
	370					375									

<210> 4316

<211> 112

<212> PRT

<213> Homo sapiens

<400> 4316

Met Val Phe Pro Arg Leu Phe Thr Cys Pro Thr Leu Glu Thr Thr Asn
1 5 10 15

Phe Lys Val Gly Lys Trp His Ser Pro Pro Ala Leu Met Gly Pro Trp 20 25 Glu Gly Pro Leu Ser Ala Arg Ala Cys Cys Gly Ser Gln Ser Ser Glu 35 40 45 Pro Ala Ala Leu Arg Ser Leu Ser Ala Arg Ala Cys His Arg Pro Tyr 50 60 55 Ser Ser Glu Pro Ala Ala Leu Arg Leu Leu Asn Lys Thr Leu Leu Arg 70 75 Ser Cys Cys Ala Ala Gln Gly Thr His Pro Gln Ala Val Leu Val Leu 85 90 Val Gly Leu Pro Leu Ser His Gly Glu Thr His Arg Pro Thr Ser Val 100 105 110

<210> 4317

<211> 209

<212> PRT

<213> Homo sapiens

<400> 4317

Gly Leu Trp Met Asn Cys Val Val Gln Ser Thr Gly Gln Met Gln Cys 50 55 60

Lys Val Tyr Asp Ser Leu Leu Ala Leu Pro Gln Asp Leu Gln Ala Ala 65 70 75 80

Arg Ala Leu Val Ile Ile Ser Ile Ile Val Ala Ala Leu Gly Val Leu 85 90 95

Leu Ser Val Val Gly Gly Lys Cys Thr Asn Cys Leu Glu Asp Glu Ser 100 105 110

Ala Lys Ala Lys Thr Met Ile Val Ala Gly Val Val Phe Leu Leu Ala 115 120 125 Gly Leu Met Val 11e Val Pro Val Ser Trp Thr Ala His Asn Ile 11e Gln Asp Phe Tyr Asn Pro Leu Val Ala Ser Gly Gln Lys Arg Glu Met Gly Ala Ser Leu Tyr Val Gly Trp Ala Ala Ser Gly Leu Leu Leu Leu Gly Gly Leu Leu Cys Cys Asn Ser Pro Pro Arg Thr Asp Lys Pro Tyr Ser Ala Lys Tyr Ser Ala Ala Arg Ser Ala Ala Ala Ser Asn Tyr Val <210> 4318 <211> 559 <212> PRT <213> Homo sapiens <400> 4318 Met Pro Ser Gly Lys Trp Glu Ala Trp Gly Tyr Gly Lys Asp Gly Thr

Gly Ser Arg Lys Ala Gln Glu Lys Asn Ser Gly Ala Asn Ser Ser Ser Leu Ser Thr Ala Ser Ala Pro Gly Ala Ala Pro Leu Thr Ile Ser Ser Pro Leu His Val Pro Ser Ser Leu Pro Gly Pro Ala Ser Ser Pro Met Pro Ile Pro Asn Ser Ser Pro Leu Ala Ser Pro Val Ser Ser Thr Val Ser Val Pro Leu Ser Ser Leu Pro 11e Ser Val Pro Thr Thr Leu Pro Ala Pro Ala Ser Ala Pro Leu Thr Ile Pro Ile Ser Ala Pro Leu Thr Val Ser Ala Ser Gly Pro Ala Leu Leu Thr Ser Val Thr Pro Pro

Leu	Ala	Pro	Val	Val	Pro	Ala	Ala	Pro	Gly	Pro	Pro	Ser	Leu	Ala	Pro
	130					135					140				
Ser	G1 y	Ala	Ser	Pro	Ser	Ala	Ser	Ala	Leu	Thr	Leu	Gly	Leu	Ala	Thr
145					150					155					160
Ala	Pro	Ser	Leu	Ser	Ser	Ser	Gln	Thr	Pro	Gly	His	Pro	Leu	Leu	Leu
				165					170					175	
Ala	Pro	Thr	Ser	Ser	His	Val	Pro	Gly	Leu	Asn	Ser	Thr	Val	Ala	Pro
			180					185					190		
Ala	Cys	Ser	Pro	Val	Leu	Val	Pro	Ala	Ser	Ala	Leu	Ala	Ser	Pro	Phe
		195					200					205			
Pro	Ser	Ala	Pro	Asn	Pro	Ala	Pro	Ala	Gln	Ala	Ser	Leu	Leu	Ala	Pro
	210					215					220				
Ala	Ser	Ser	Ala	Ser	Gln	Λla	Leu	Ala	Thr	Pro	Leu	Ala	Pro	Met	Ala
225					230					235					240
Ala	Pro	Gln	Thr	Ala	lle	Leu	Ala	Pro	Ser	Pro	Ala	Pro	Pro	Leu	Ala
				245					250					255	
Pro	Leu	Pro	Val	Leu	Ala	Pro	Ser	Pro	Gly	Ala	Ala	Pro	Val	Leu	Ala
			260					265					270		
Ser	Ser	Gln	Thr	Pro	Val	Pro	Val	Met	Ala	Pro	Ser	Ser	Thr	Pro	Gly
		275					280					285			
Thr	Ser	Leu	Ala	Ser	Ala	Ser	Pro	Val	Pro	Ala	Pro	Thr	Pro	Val	Leu
	290					295					300				
Ala	Pro	Ser	Ser	Thr	Gln	Thr	Met	Leu	Pro	Ala	Pro	Val	Pro	Ser	Pro
305					310					315					320
Leu	Pro	Ser	Pro	Ala	Ser	Thr	Gln	Thr	Leu	Ala	Leu	Ala	Pro	Ala	Leu
				325					330					335	
Ala	Pro	Thr	Leu	Gly	Gly	Ser	Ser	Pro	Ser	Gln	Thr	Leu	Ser	Leu	Gly
			340					345					350		
Thr	Gly	Asn	Pro	Gln	Gly	Pro	Phe	Pro	Thr	Gln	Thr	Leu	Ser	Leu	Ťhr
		355					360					365			
Pro	Ala	Ser	Ser	Leu	Val	Pro	Thr	Pro	Ala	Gln	Thr	Leu	Ser	Leu	Ala
	370					375					380				
Pro	Gly	Pro	Pro	Leu	Gly	Pro	Thr	Gln	Thr	Leu	Ser	Leu	Ala	Pro	Ala
385					390					395					400
Pro	Pro	Leu	Ala		Ala	Ser	Pro	Val	Gly	Pro	Ala	Pro	Ala		Thr
				405					410					415	

Leu	Thr	Leu	Ala	Pro	Ala	Ser	Ser	Ser	Ala	Ser	Leu	Leu	Ala	Pro	Ala
			420					425					430		
Ser	Val	Gln	Thr	Leu	Thr	Leu	Ser	Pro	Ala	Pro	Val	Pro	Thr	Leu	Gly
		435					440					445			
Pro	Ala	Ala	Ala	Gln	Thr	Leu	Ala	Leu	Ala	Pro	Ala	Ser	Thr	Gln	Ser
	450					455					460				
Pro	Ala	Ser	Gln	Ala	Ser	Ser	Leu	Val	Val	Ser	Ala	Ser	G1y	Ala	Ala
465					470					475					480
Pro	Leu	Pro	Val	Thr	Met	Val	Ser	Arg	Leu	Pro	Val	Ser	Lys	Tyr	Glu
				485					490					495	
Pro	Asp	Thr	Leu		Leu	Arg	Ser	Gly		Pro	Ser	Pro	Pro		Thr
Pro	Asp	Thr	Leu 500		Leu	Arg	Ser	G1y 505		Pro	Ser	Pro	Pro 510		Thr
			500	Thr	Leu Gly			505	Pro				510	Ser	
			500	Thr				505	Pro				510	Ser	
Ala	Thr	Ser 515	500 Phe	Thr		Pro	Arg 520	505 Pro	Pro Arg	Arg	Gln	Pro 525	510 Pro	Ser Pro	Pro
Ala	Thr	Ser 515	500 Phe	Thr	Gly	Pro	Arg 520	505 Pro	Pro Arg	Arg	Gln	Pro 525	510 Pro	Ser Pro	Pro
Ala Pro	Thr Arg 530	Ser 515 Ser	500 Phe Pro	Thr Gly Phe	Gly	Pro Leu 535	Arg 520 Val	505 Pro Ser	Pro Arg Phe	Arg Thr	Gln Ser 540	Pro 525 Ser	510 Pro Arg	Ser Pro Gly	Pro

<210> 4319

<211> 962

<212> PRT

<213> Homo sapiens

<400> 4319

65

75

80

Glu	Pro	lle	He	Lys	Pro	Val	Lys	Thr	Lys	Lys	Phe	Thr	Leu	Met	Glu
				85					90					95	
Gln	Thr	Leu	Pro	Val	Thr	Val	Tyr	Glu	Met	Asp	Phe	Leu	Ala	Asp	Leu
			100					105					110		
Met	Asp	Asn	Ser	Glu	Leu	11e	Arg	Asn	Val	Thr	Leu	Cys	G1y	His	Leu
		115					120					125			
His	His	Gly	Lys	Thr	Cys	Phe	Val	Asp	Cys	Leu	He	Glu	Gln	Thr	His
	130					135					140				
Pro	Glu	lle	Arg	Lys	Arg	Tyr	Asp	Gln	Asp	Leu	Cys	Tyr	Thr	Asp	He
145					150					155					160
Leu	Phe	Thr	Glu	Gln	Glu	Arg	Gly	Val	Gly	He	Lys	Ser	Thr	Pro	Val
				165					170					175	
Thr	Va]	Val	Leu	Pro	Asp	Thr	Lys	G1y	Lys	Ser	Tyr	Leu	Phe	Asn	Пе
			180					185					190		
Met	Asp	Thr	Pro	Gly	His	Va]	Asn	Phe	Ser	Asp	Glu	Va]	Thr	Ala	Gly
		195					200					205			
Leu	Arg	He	Ser	Asp	Gly	Val	Val	Leu	Phe	lle	Asp	Ala	Ala	Glu	Gly
	210					215					220				
Val	Met	Leu	Asn	Thr	Glu	Arg	Leu	He	Lys	His	Ala	Val	Gln	Glu	Arg
225					230					235			,		240
Leu	Ala	Va]	Thr	Val	Cys	11e	Asn	Lys	He	Asp	Arg	Leu	He	Leu	Glu
				245					250					255	
Leu	Lys	Leu	Pro	Pro	Thr	Asp	Ala	Tyr	Tyr	Lys	Leu	Arg	His	Пе	Val
			260					265					270		
Asp	Glu	Val	Asn	Gly	Leu	He	Ser	Met	Tyr	Ser	Thr	Asp	Glu	Asn	Leu
		275					280					285			
He	Leu	Ser	Pro	Leu	Leu	Gly	Asn	Val	Cys	Phe	Ser	Ser	Ser	Gln	Tyr
	290					295					300				
Ser	Пe	Cys	Phe	Thr	Leu	Gly	Ser	Phe	Ala	Lys	He	Tyr	Ala	Asp	Thr
305					310					315					320
Phe	Gly	Asp	Пе	Asn	Tyr	Gln	Glu	Phe	Ala	Lys	Arg	Leu	Trp	Gly	Asp
				325					330					335	
He	Tyr	Phe	Asn	Pro	Lys	Thr	Arg	Lys	Phe	Thr	Lys	Lys	Ala	Pro	Thr
			340					345					350		
Ser	Ser	Ser	Gln	Arg	Ser	Phe	Val	Glu	Phe	He	Leu	G] u	Pro	Leu	Tyr

		355					360					365			
Lys	He	Leu	Ala	Gln	Val	Val	Gly	Asp	Val	Asp	Thr	Ser	Leu	Pro	Arg
	370					375					380				
Thr	Leu	Asp	Glu	Leu	Gly	Пe	His	Leu	Thr	Lys	Glu	Glu	Leu	Lys	Leu
385					390					395					400
Asn	Пе	Arg	Pro	Leu	Leu	Arg	Leu	Val	Cys	Lys	Lys	Phe	Phe	Gly	Glu
				405					410					415	
Phe	Thr	Gly	Phe	Val	Asp	Met	Cys	Val	Gln	His	Пe	Pro	Ser	Pro	Lys
			420					425					430		
Val	Gly	Ala	Lys	Pro	Lys	He	Glu	His	Thr	Tyr	Thr	Gly	Gly	Val	Asp
		435					440					445			
Ser	Asp	Leu	Gly	Glu	Ala	Met	Ser	Asp	Cys	Asp	Pro	Asp	$\operatorname{Gl} y$	Pro	Leu
	450					455					460				
Met	Cys	His	Thr	Thr	Lys	Met	Tyr	Ser	Thr	Asp	Asp	Gly	Val	Gln	Phe
465					470					475					480
His	Ala	Phe	Gly	Arg	Val	Leu	Ser	Gly	Thr	11e	His	Ala	Gly	Gln	Pro
				485					490					495	
Val	Lys	Val	Leu	Gly	Glu	Asn	Tyr	Thr	Leu	Glu	Asp	Glu	Glu	Asp	Ser
			500					505					510		
Gln	He	Cys	Thr	Va]	Gly	Arg	Leu	Trp	He	Ser	Val	Ala	Arg	Tyr	llis
		515					520					525			
lle	Glu	Val	Asn	Arg	Val	Pro	Ala	Gly	Asn	Trp	Val	Leu	11e	Glu	G1 y
	530					535					540				
Va]	Asp	Gln	Pro	lle	Val	Lys	Thr	Ala	Thr	He	Thr	Glu	Pro	Arg	G1 y
545					550					555					560
Asn	Glu	Glu	Ala	Gln	He	Phe	Arg	Pro	Leu	Lys	Phe	Asn	Thr	Thr	Ser
				565										575	
Va]	He	Lys		Ala	Val	Glu	Pro	Val	Asn	Pro	Ser	G] u		Pro	Lys
			580					585					590		
Met	Leu		Gly	Leu	Arg	Lys		Asn	Lys	Ser	Tyr		Ser	Leu	Thr
		595					600					605			
Thr		Val	Glu	Glu	Ser	-	Glu	His	Val	He		Gly	Thr	Gly	Glu
	610			_		615					620				
	Tyr	Leu	Asp	Cys		Met	His	Asp	Leu		Lys	Met	Tyr	Ser	
625					630					635	*5.	_	٥.	m.	640
Ha	Acn	He	lve	Val	Ala	Acn	Prc	Val	Val	Thr	Pho	Cve	Glo	lhr	Val

				645					650					655	
Val	Glu	Thr	Ser	Ser	Leu	Lys	Cys	Phe	Ala	Glu	Thr	Pro	Asn	Lys	Lys
			660					665					670		
Asn	Lys	lle	Thr	Met	Пе	Ala	Glu	Pro	Leu	G] u	Lys	Gly	Leu	Ala	Glu
		675					680					685			
Asp	lle	Glu	Asn	Glu	Val	Va]	G1n	He	Thr	Trp	Asn	Arg	Lys	Lys	Leu
	690					695					700				
Gly	Glu	Phe	Phe	Gln	Thr	Lys	Tyr	Asp	Тгр	Asp	Leu	Leu	Ala	Ala	Arg
705					710					715					720
Ser	Ile	Trp	Ala	Phe	Gly	Pro	Asp	Ala	Thr	Gly	Pro	Asn	lle	Leu	Val
				725					730					735	
Asp	Asp	Thr	Leu	Pro	Ser	Glu	Val	Asp	Lys	Ala	Leu	Leu	G1y	Ser	Val
			740					745					750		
Lys	Asp	Ser	He	Val	Gln	Gly	Phe	Gln	Trp	Gly	Thr	Arg	Glu	Gly	Pro
		755					760					765			
Leu	Cys	Asp	Glu	Leu	lle	Arg	Asn	Val	Lys	Phe	Lys	11e	Leu	Asp	Ala
	770					775					780				
Val	Val	Ala	Gln	Glu	Pro	Leu	His	Arg	G1 y	G1 y	Gly	Gln	He	He	Pro
785					790					795					800
Thr	Ala	Arg	Arg		Val	Tyr	Ser	Ala		Leu	Met	Ala	Thr	Pro	Arg
				805					810					815	
Leu	Met	61u	Pro	Tyr	Tyr	Phe	Val		Val	Gln	Ala	Pro	Ala	Asp	Cys
			820					825					830		
Val	Ser		Val	Tyr	Thr	Val		Ala	Arg	Arg	Arg	G] y	His	Val	Thr
		835					840					845			
GIn		Ala	Pro	He	Pro		Ser	Pro	Leu	Tyr	Thr	He	Lys	Ala	Phe
	850					855		***			860				
	Pro	Ala	He	Asp		Phe	GIy	Phe	Glu		Asp	Leu	Arg	Thr	
865	C1	C1	C 1	. 1	870	C	,	6	V 1	875			T	0.1	880
Inr	61n	61y	Gln		Phe	Ser	Leu	Ser		Phe	His	HIS	Lrp		He
V = 1	D	C1	Λ	885 D	1			C	890	12 1	7.7		13	895	6.1
vai	Pro	GIY	Asp	Pro	Leu	Asp	Lys		He	Val	Пе	Arg		Leu	Glu
D _m =	C15	Dro	900	D	114 -	1	A 7 -	905	C1	DI		1.1	910	TI	Α.
110	пто		Ala	t.1.0	птѕ	Leu		Arg	GIU	rne	Met		Lys	rn)*	Arg
Δνα	Δνα	915 Lvs	Glv	Lou	Som	C1	920 Acn	V _C 1	C ~~	11.	C	925 Luc	D1	Dl- »	A
13 1 12	$\alpha \cdot \nu$	1 1/2	CIIV	1 . 1-11	. 31-1		ASD	v a i	210 L	110	>0 Y	1 1/5	1:110	17 (1) (2)	ACD

Asp Pro Met Leu Leu Glu Leu Ala Lys Gln Asp Val Val Leu Asn Tyr Pro Met <210> 4320 <211> 281 <212> PRT <213> Homo sapiens <400> 4320 Met Arg Phe Val Val Ala Leu Val Leu Leu Asn Val Ala Ala Ala Gly Ala Val Pro Leu Leu Ala Thr Glu Ser Val Lys Gln Glu Glu Ala Gly Val Arg Pro Ser Ala Gly Asn Val Ser Thr His Pro Ser Leu Ser Gln Arg Pro Gly Gly Ser Thr Lys Ser His Pro Glu Pro Gln Thr Pro Lys Asp Ser Pro Ser Lys Ser Gly Ser Glu Ala Gln Thr Thr Lys Asp Val Pro Asn Lys Ser Gly Ala Asp Gly Gln Thr Pro Lys Asp Gly Ser Ser Lys Ser Gly Ala Glu Asp Gln Thr Pro Lys Asp Val Pro Asn Lys Ser Gly Ala Glu Lys Gln Thr Pro Lys Asp Gly Ser Asn Lys Ser Gly Ala Glu Glu Gln Gly Pro 11e Asp Gly Pro Ser Lys Ser Gly Ala Glu Glu Gln Thr Ser Lys Asp Ser Pro Asn Lys Glu Glu Val Lys Ser Ser Glu Pro Thr Glu Asp Val Glu Pro Lys Glu Ala Glu Asp Asp Asp Thr Gly

Pro Glu Glu Gly Ser Pro Pro Lys Glu Glu Lys Glu Lys Met Ser Gly

Ser Ala Ser Ser Glu Asn Arg Glu Gly Thr Leu Ser Asp Ser Thr Gly Ser Glu Lys Asp Asp Leu Tyr Pro Asn Gly Ser Gly Asn Gly Ser Ala Glu Ser Ser His Phe Phe Ala Tyr Leu Val Thr Ala Ala 11e Leu Val Ala Val Leu Tyr Ile Ala His His Asn Lys Arg Lys Ile Ile Ala Phe Val Leu Glu Gly Lys Arg Ser Lys Val Thr Arg Arg Pro Lys Ala Ser Asp Tyr Gln Arg Leu Asp Gln Lys Ser

<210> 4321

<211> 647

<212> PRT

<213> Homo sapiens

<400> 4321

Met Ala Ala Ile Leu Gly Asp Thr Ile Met Val Ala Lys Gly Leu Val Lys Leu Thr Gln Ala Ala Val Glu Thr His Leu Gln His Leu Gly Ile Gly Gly Glu Leu Ile Met Ala Ala Arg Ala Leu Gln Ser Thr Ala Val Glu Gln lle Gly Met Phe Leu Gly Lys Val Gln Gly Gln Asp Lys His Glu Glu Tyr Phe Ala Glu Asn Phe Gly Gly Pro Glu Gly Glu Phe His Phe Ser Val Pro His Ala Ala Gly Ala Ser Thr Asp Phe Ser Ser Ala Ser Ala Pro Asp Gln Ser Ala Pro Pro Ser Leu Gly His Ala His Ser

Glu Gly Pro Ala Pro Ala Tyr Val Ala Ser Gly Pro Phe Arg Glu Ala

		115					120					125			
Gly	Phe	Pro	Gly	Gln	Ala	Ser	Ser	Pro	Leu	G1 y	Arg	Ala	Asn	Gly	Arg
	130					135					140				
Leu	Phe	Ala	Asp	Pro	Arg	Asp	Ser	Phe	Ser	Ala	Met	Gly	Phe	Gln	Arg
145					150					155					160
Arg	Phe	Phe	His	Gln	Asp	Gln	Ser	Pro	Val	Gly	Gly	Leu	Thr	Ala	Glu
				165					170					175	
Asp	Ile	Glu	Lys	Ala	Arg	Gln	Ala	Lys	Ala	Arg	Pro	Glu	Asn	Lys	Gln
			180					185					190		
His	Lys	Gln	Thr	Leu	Ser	Glu	His	Ala	Arg	Glu	Arg	Lys	Val	Pro	Val
		195					200					205			
Thr	Arg	He	Gly	Arg	Leu	Ala	Asn	Phe	Gly	Gly	Leu	Ala	Val	Gly	Leu
	210					215					220				
G1y	Phe	Gly	Ala	Leu	Ala	Glu	Val	Ala	Lys	Lys	Ser	Leu	Arg	Ser	Glu
225					230					235					240
Asp	Pro	Ser	Gly	Lys	Lys	Ala	Va]	Leu	Gly	Ser	Ser	Pro	Phe	Leu	Ser
				245					250					255	
Glu	Ala	Asn	Ala	Glu	Arg	Ile	Val	Arg	Thr	Leu	Cys	Lys	Val	Arg	Gly
			260					265					270		
Ala	Ala	Leu	Lys	Leu	Gly	Gln	Met	Leu	Ser	lle	Gln	Asp	Asp	Ala	Phe
		275					280					285			
He	Asn	Pro	His	Leu	Ala	Lys	He	Phe	Glu	Arg	Val	Arg	Gln	Ser	Ala
	290					295					300				
Asp	Phe	Met	Pro	Leu	Lys	Gln	Met	Met	Lys	Thr	Leu	Asn	Asn	Asp	Leu
305					310					315					320
Gly	Pro	Asn	Trp	Arg	Asp	Lys	Leu	Glu	Tyr	Phe	Glu	Glu	Arg	Pro	Phe
				325					330					335	
Ala	Ala	Ala		He	Gly	G1n	Val		Leu	Ala	Arg	Met		Gly	Gly
			340					345					350		
Arg	Glu		Ala	Met	Lys	lle		Tyr	Pro	Gly	Val		Gln	Ser	He
	_	355					360			_		365			
Asn	Ser	Asp	Val	Asn	Asn		Met	Ala	Val	Leu		Met	Ser	Asn	Met
	370	0.1	0.1		DI	375	6.7		,		380	., .			
	Pro	Glu	Gly	Leu		Pro	61u	HIS	Leu		Asp	Val	Leu	Arg	
385	1	A 7	1	C1.	390	Δ	т	C1	۸.	395	A T	A T .	C	ΑЭ.	400
GID	Leu	ALA	1.611	11111	UVS	ASD	LVT	uln	Arg	11111	ALA	ALA	LVS	ATA	Arg

				405					410					415	
Lys	Phe	Arg	Asp	Leu	Leu	Lys	Gly	His	Pro	Phe	Phe	Tyr	Val	Pro	Glu
			420					425					430		
He	Val	Asp	Glu	Leu	Cys	Ser	Pro	His	Val	Leu	Thr	Thr	Glu	Leu	Val
		435					440					445			
Ser	Gly	Phe	Pro	Leu	Asp	Gln	Ala	Glu	Gly	Leu	Ser	Gln	Glu	Пе	Arg
	450					455					460				
Asn	Glu	He	Cys	Tyr	Asn	lle	Leu	Val	Leu	Cys	Leu	Arg	Glu	Leu	Phe
465					470					475					480
Glu	Phe	His	Phe	Met	Gln	Thr	Asp	Pro	Àsn	Trp	Ser	Asn	Phe	Phe	Tyr
				485					490					495	
Asp	Pro	Gln	Gln	His	Lys	Val	Ala	Leu	Leu	Asp	Phe	Gly	Ala	Thr	Arg
			500					505					510		
Glu	Tyr	Asp	Arg	Ser	Phe	Thr	Asp	Leu	Tyr	He	Gln	He	He	Arg	Ala
		515					520					525			
Ala	Ala	Asp	Arg	Asp	Arg	Glu	Thr	Va]	Arg	Ala	Lys	Ser	He	Glu	Met
	530					535					540				
Lys	Phe	Leu	Thr	Gly	Tyr	Glu	Va1	Lys	Val	Met	Glu	Asp	Ala	His	Leu
545					550					555					560
Asp	Ala	He	Leu	He	Leu	Gly	Glu	Ala	Phe	Ala	Ser	Asp	Glu	Pro	Phe
				565					570					575	
Asp	Phe	Gly	Thr	Gln	Ser	Thr	Thr	Glu	Lys	lle	His	Asn	Leu	He	Pro
			580					585					590		
Val	Met	Leu	Arg	His	Arg	Leu	Va]	Pro	Pro	Pro	Glu	Glu	Thr	Tyr	Ser
		595					600					605			
Leu	His	Arg	Lys	Met	Gly	Gly	Ser	Phe	Leu	lle	Cys	Ser	Lys	Leu	Lys
	610					615					620				
Ala	Arg	Phe	Pro	Cys	Lys	Ala	Met	Phe	Glu		Ala	Tyr	Ser	Asn	Tyr
625					630					635					640
Cys	Lys	Arg	Gln		Gln	Gln									
				645											

<210> 4322 <211> 419

<212	2> PF	RT													
<213	3> Ho	omo s	sapie	ens											
<400)> 43	322													
Met	Ser	Arg	Gly	Thr	Arg	Glu	Ser	Ala	Cys	Cys	Met	Leu	Thr	Ser	Trp
I				5					10					15	
Ala	Ser	Arg	Gly	Trp	Pro	Ala	Ser	Val	Pro	Leu	Arg	Ser	Trp	Cys	Ser
			20					25					30		
Cys	Ser	Met	Ser	Ser	Leu	Ala	Ser	Ser	Thr	Arg	Leu	Pro	Arg	Lys	Leu
		35					40					45			
Arg	Ala	Ala	Thr	Gly	Val	Asp	He	Asn	Met	Arg	Val	Gly	Val	His	Ser
	50					55					60				
Gly	Ser	Val	Leu	Cys	Gly	Val	lle	Gly	Leu	Gln	Lys	Trp	Gln	Tyr	Asp
65					70					75					80
Val	Trp	Ser	His	Asp	Val	Thr	Leu	Ala	Asn	His	Met	Glu	Ala	Gly	Gly
				85					90					95	
Val	Pro	Gly	Arg	Val	His	lle	Thr	Gly	Ala	Thr	Leu	Ala	Leu	Leu	Ala
			100					105					110		
Gly	Ala	Tyr	Ala	Val	Glu	Asp	Ala	Gly	Met	Glu	His	Arg	Asp	Pro	Tyr
		115					120					125			
Leu	Arg	Glu	Leu	Gly	Glu	Pro	Thr	Tyr	Leu	Val	Ile	Asp	Pro	Arg	Ala
	130					135					140				
Glu	Glu	Glu	Asp	Glu	Lys	G] y	Thr	Ala	Gly	Gly	Leu	Leu	Ser	Ser	Leu
145					150					155					160
Glu	Gly	Leu	Lys	Met	Arg	Pro	Ser	Leu	Leu	Met	Thr	Arg	Tyr	Leu	Glu
				165					170					175	
Ser	Trp	Gly	Ala	Ala	Lys	Pro	Phe	Ala	His	Leu	Ser	His	Gly	Asp	Ser
			180					185					190		
Pro	Val	Ser	Thr	Ser	Thr	Pro	Leu	Pro	Glu	Lys	Thr	Leu	Ala	Ser	Phe
		195					200					205			
Ser	Thr	Gln	Trp	Ser	Leu	Asp	Arg	Ser	Arg	Thr	Pro	Arg	Gly	Leu	Asp
	210					215					220				
Asp	Glu	Leu	Asp	Thr	G1y	Asp	Ala	Lys	Phe	Phe	Gln	Val	He	Glu	G1n
225					230					235					240

Leu Asn Ser Gln Lys Gln Trp Lys Gln Ser Lys Asp Phe Asn Pro Leu

Thr Leu Tyr Phe Arg Glu Lys Glu Met Glu Lys Glu Tyr Arg Leu Ser Ala Ile Pro Ala Phe Lys Tyr Tyr Glu Ala Cys Thr Phe Leu Val Phe Leu Ser Asn Phe Ile Ile Gln Met Leu Val Thr Asn Arg Pro Pro Ala 300. Leu Ala Ile Thr Tyr Ser Ile Thr Phe Leu Leu Phe Leu Leu Ile Leu Phe Val Cys Phe Ser Glu Asp Leu Met Arg Cys Val Leu Lys Gly Pro Lys Met Leu His Trp Leu Pro Ala Leu Ser Gly Leu Val Ala Thr Arg Pro Gly Leu Arg lle Ala Leu Gly Thr Ala Thr lle Leu Leu Val Phe Ala Met Ala Ile Thr Ser Leu Phe Phe Phe Pro Thr Ser Ser Asp Cys Pro Phe Gln Ala Pro Asn Val Ser Ser Met Ile Ser Asn Leu Ser Trp Glu Leu Pro Gly Ser Leu Pro Leu Ile Ser Val Pro Val Ser Val Pro Thr Cys Pro

<210> 4323

<211> 101

<212> PRT

<213> Homo sapiens

<400> 4323

Met Ala His Val Ala Glu Lys Asp Gly Leu Asp Trp Ala Ser Gly Cys Ile Pro Gly Leu Gln Thr Gly Ile Cys Leu Phe Gly Ser Gln Leu Cys Phe His Leu Ser Trp Leu Tyr Ser Trp Ala Ser Gln Cys Gly Pro Thr

Ala Pro Val 11e Asp Lys Lys Ser Ser Pro Leu Leu Thr Glu Leu Leu Asp Leu Val Leu Ile Gly Pro Asp Glu Glu Gly Ile Gln Pro Gln Val Ile Ile Val Ala Arg Lys Met Glu Tyr Thr Lys Trp Thr Gly Leu Ala Cys Thr His Arg Asp <210> 4324 <211> 224 <212> PRT <213> Homo sapiens <400> 4324

Met Val Cys Leu Val Leu Leu Asn His Pro Lys Glu Leu Asn Met Ala Lys Gln Met Val Lys Ala Ser Arg Leu Phe Tyr Phe Gly Ser Ala Arg Ser Pro Leu Thr Cys Asp Leu Cys Cys Pro Ser Arg Trp Ser Gln Ala Ile Gln Pro Cys Pro Leu Pro Leu Cys Pro Asp Ala Ser Gly Ala Arg Leu Phe Arg Leu Ala Leu Thr Ser Gly Arg Gln Ser Thr Leu Arg Asp Val Ala Asn Thr Thr Pro Pro Val Leu Ser Val Gly Arg Ala Glu Ala Ala Trp Glu Ala Arg Gly Asp Arg Lys Arg Ala Leu Ser Ser Glu Lys Arg Ile Cys His Gln Ile Glu Phe Arg Pro Leu Ser Leu Phe Gly Arg Met Val Gln 11e Gln 11e Lys Val Val Thr Gln Pro Glu Met Ser Gly Lys Ala Phe Cys Arg Glu Asn Val Pro Pro Pro Ala Ile Cys Ser

<210> 4325

<211> 1192

<212> PRT

<213> Homo sapiens

<400> 4325

Met Leu Asp Gly Ala Arg Leu Glu Gly Asp Leu Ser Leu Ala His Glu

1 5 10 15 Asp Val Ala Gly Lys Asp Ser Lys Phe Gln Gly Pro Lys Leu Ser Thr 20 25 30 Ser Gly Phe Glu Trp Ser Ser Lys Lys Val Ser Met Ser Ser Ser Glu 45 lle Glu Gly Asn Val Thr Phe His Glu Lys Thr Ser Ala Phe Pro Ile 50 Val Glu Ser Val Val His Glu Gly Asp Leu His Asp Pro Ser Arg Asp 70 75 Gly Asn Leu Gly Leu Ala Val Gly Glu Val Gly Met Asp Ser Lys Phe 85 90 Lys Lys Leu His Phe Lys Val Pro Lys Val Ser Phe Ser Ser Thr Lys 100 105 110 Thr Pro Lys Asp Ser Leu Val Pro Gly Ala Lys Ser Ser Ile Gly Leu 120 Ser Thr 11e Pro Leu Ser Ser Ser Glu Cys Ser Ser Phe Glu Leu Gln 130 135 140 Gln Val Ser Ala Cys Ser Glu Pro Ser Met Gln Met Pro Lys Val Gly

145					150					155					160
Phe	Ala	Gly	Phe	Pro	Ser	Ser	Arg	Leu	Asp	Leu	Thr	Gly	Pro	His	Phe
				165					170					175	
Glu	Ser	Ser	lle	Leu	Ser	Pro	Cys	Glu	Asp	Val	Thr	Leu	Thr	Lys	Tyr
			180					185					190		
Gln	Val	Thr	Val	Pro	Arg	Ala	Ala	Leu	Ala	Pro	Glu	Leu	Ala	Leu	Glu
		195					200					205			
He	Pro	Ser	Gly	Ser	Gln	Ala	Asp	He	Pro	Leu	Pro	Lys	Thr	Glu	Cys
	210					215					220				
Ser	Thr	Asp	Leu	Gln	Pro	Pro	Glu	Gly	Val	Pro	Thr	Ser	Gln	Ala	Glu
225					230					235					240
Ser	His	Ser	Gly	Pro	Leu	Asn	Ser	Met	He	Pro	Val	Ser	Leu	Gly	Gln
				245					250					255	
Val	Ser	Phe	Pro	Lys	Phe	Tyr	Lys	Pro	Lys	Phe	Val	Phe	Ser	Val	Pro
			260					265					270		
Gln	Met	Ala	Va]	Pro	Glu	Gly	Asp	Leu	His	Ala	Ala	Val	Gly	Ala	Pro
		275					280					285			
Val	Met	Ser	Pro	Leu	Ser	Pro	Gly	Glu	Arg	Val	Gln	Cys	Pro	Leu	Pro
	290					295					300				
Ser	Thr	Gln	Leu	Pro	Ser	Pro	G1 y	Thr	Cys	Val	Ser	Gln	Gly	Pro	Glu
305			•		310					315					320
Glu	Leu	Va]	Ala	Ser	Leu	Gln	Thr	Ser	Val	Val	Ala	Pro	Gly	Glu	Ala
				325					330					335	
Pro	Ser	Glu	Asp	Ala	Asp	His	G]u	Gly	Lys	Gly	Ser	Pro	Leu	Lys	Met
			340					345					350		
Pro	Lys	lle	Lys	Leu	Pro	Ser	Phe	Arg	Trp	Ser	Pro	Lys	Lys	Glu	Thr
		355					360					365			
Gly	Pro	Lys	Val	Asp	Pro	Glu	Cys	Ser	Val	Glu	Asp	Ser	Lys	Leu	Ser
	370					375					380				
Leu	Val	Leu	Asp	Lys	Asp	G] u	Val	Ala	Pro	Gln	Ser	Ala	lle	His	Met
385					390					395					400
Asp	Leu	Pro	Pro	Glu	Arg	Asp	Gly	Glu	Lys	Gly	Arg	Ser	Thr	Lys	Pro
				405					410					415	
Gly	Phe	Ala	Met	Pro	Lys	Leu	Ala	Leu	Pro	Lys	Met	Lys	Ala	Ser	Lys
			420					425					430		
Ser	Gly	Val	Ser	Leu	Pro	Gln	Arg	Gly	Val	Asp	Pro	Ser	Leu	Ser	Ser

			435					440					445			
	Ala	Thr	Ala	Gly	Gly	Ser	Phe	Gln	Asp	Thr	Glu	Lys	Ala	Ser	Ser	Asp
		450					455					460				
•	Gly	Gly	۸rg	G1y	Gly	Leu	Gly	Ala	Thr	Ala	Ser	Ala	Thr	Gly	Ser	G1 u
	465					470					475					480
,	Gly	Val	Asn	Leu	His	Arg	Pro	Gln	Val	His	Πle	Pro	Ser	Leu	Gly	Phe
					485					490					495	
	Ala	Lys	Pro	Asp	Leu	Arg	Ser	Ser	Lys	Ala	Lys	Val	Glu	Val	Ser	Gln
				500					505					510		
	Pro	Glu	Ala	Asp	Leu	Pro	Leu	Pro	Lys	His	Asp	Leu	Ser	Thr	Glu	Gly
			515					520					525			
	Asp	Ser	Arg	Gly	Cys	Gly	Leu	G] u	Asp	Val	Pro	Val	Ser	Gln	Pro	Cys
		530					535					540				
	G1 y	Glu	Gly	He	Ala	Pro	Thr	Pro	Glu	Asp		Leu	Gln	Pro	Ser	
	545					550					555					560
	Arg	Lys	Pro	Asp		Glu	Val	Leu	Thr		Glu	Ser	Pro	Glu		Glu
					565					570					575	
	Ala	Met	Thr		Asp	Ser	GIn	Glu		Trp	Phe	Lys	Met	Pro	Lys	Phe
			n	580					585				67	590		6.1
	Arg	Met		Ser	Leu	Arg	Arg		Phe	Arg	Asp	Arg		Gly	Ala	Gly
			595	V 1	A 1	C1	TI.	600	A7.	D	A1.	A 1 -	605	C1	C1	C1
	Lys		GIU	vai	АТА	GIN		GJH	АТа	PFO	Ala	620	1111	Gly	GIY	Glu
	A 1 a	610	Ala	Lvc	Val	Lve	615	Pho	Lou	Val	Sor		Sor	Asn	Val	Glu
	625	ЛΙα	Mia	Lys	(41	630	O.Lu	THE	Leu	141	635	Ory	1,761	изп	161	640
		Ala	Met	Ser	Leu		Leu	Pro	Glu	Ala		Ala	Glu	Val	Thr	
		71.10	MC C	501	645	0111	1300		014	650	11.5 [5		0.0		655	
	Ser	Glu	Ser	Lvs		Ser	Thr	Asp	lle		Arg	Cvs	Asp	Leu		Ser
				660				·	665			•	•	670		
	Thr	Gly	Leu	Lys	l.eu	His	Leu	Ser	Thr	Ala	Gly	Met	Thr	Gly	Asp	Glu
			675					680					685			
	Leu	Ser	Thr	Ser	Glu	Val	Arg	lle	His	Pro	Ser	Lys	Gly	Pro	Leu	Pro
		690					695					700				
	Phe	Gln	Met	Pro	Gly	Met	Arg	Leu	Pro	Glu	Thr	Gln	Val	Leu	Pro	G1 y
	705					710					715					720
	G1 ii	He	Asn	Glu	Thr	Pro	Leu	Ser	Lvs	Pro	Glv	His	Asn	Leu	Ala	Ser

				725					730					735	
Met	Glu	Asp	Lys	Thr	Glu	Lys	Trp	Ser	Ser	Gln	Pro	Glu	Gly	Pro	Leu
			740					745					750		
Lys	Leu	Lys	Ala	Ser	Ser	Thr	Лsp	Met	Pro	Ser	Gln	lle	Ser	Val	Val
		755					760					765			
Asn	Val	Asp	Gln	Leu	Trp	Glu	Asp	Ser	Va]	Leu	Thr	Val	Lys	Phe	Pro
	770					775					780				
Lys	Leu	Met	Val	Pro	Arg	Phe	Ser	Phe	Ala	Ala	Pro	Ser	Ser	Glu	Asp
785					790					795					800
Asp	Val	Phe	He	Pro	Thr	Val	Arg	Glu	Val	Gln	Cys	Pro	Glu	Ala	Asn
				805					810					815	
He	Asp	Thr	Ala	Leu	Cys	Lys	Glu	Ser	Pro	Gly	Leu	Trp	Gly	Ala	Ser
			820					825					830		
Пе	Leu	Lys	Ala	Gly	Ala	Gly	Val	Pro	Gly	Glu	Gln	Pro	Va]	Asp	Leu
		835					840					845			
Asn	Leu	Pro	Leu	Glu	Ala	Pro	Pro	lle	Ser	Lys	Val	Arg	Val	His	He
	850					855					860				
Gln	Gly	Ala	Gln	Val	Glu	Ser	Gln	Glu	Va]	Thr	Ile	His	Ser	lle	Val
865					870					875					880
Thr	Pro	Glu	Phe	Val	Asp	Leu	Ser	Val	Pro	Arg	Thr	Phe	Ser	Thr	Gln
				885					890					895	
Пe	Val	Arg	Glu	Ser	Glu	Ile	Pro	Thr	Ser	Glu	lle	Gln	Thr	Pro	Ser
			900					905					910		
Tyr	61y	Phe	Ser	Leu	Leu	Lys	Val	Lys	Пe	Pro	Glu	Pro	His	Thr	Gln
		915					920					925			
Ala	Arg	Val	Tyr	Thr	Thr	Met	Thr	Gln	His	Ser	Arg	Thr	Gln	Glu	Gly
	930					935					940				
Thr	Glu	Glu	Ala	Pro	lle	Gln	Ala	Thr	Pro	Gly	Val	Asp	Ser	He	Ser
945					950					955					960
G1 y	Asp	Leu	Gln	Pro	Asp	Thr	Gly	G] u	Pro	Phe	Glu	Met	He	Ser	Ser
	`			965					970					975	
Ser	Va]	Asn	Va1	Leu	Gly	Gln	Gln	Thr	Leu	Thr	Phe	Glu	Val	Pro	Ser
			980					985					990		
Gly	His	Gln	Leu	Ala	Asp	Ser	Cys	Ser	Asp	Glu	Glu	Pro	Ala	Glu	He
		995					1000					1005			
Low	C.1	Dho	Pro	Pro	Acn	Acr	San	C1n	C1n	Ala	The	The	Dro	Lou	Alo

1015 1020 1010 Asp Glu Gly Arg Ala Pro Lys Asp Lys Pro Glu Ser Lys Lys Ser Gly 1030 1035 Leu Leu Trp Phe Trp Leu Pro Asn Ile Gly Phe Ser Ser Ser Val Asp 1045 1050 Glu Thr Gly Val Asp Ser Lys Asn Asp Val Gln Arg Ser Ala Pro Ile 1060 1065 Gln Thr Gln Pro Glu Ala Arg Pro Glu Ala Glu Leu Pro Lys Lys Gln 1080 1085 Glu Lys Ala Gly Trp Phe Arg Phe Pro Lys Leu Gly Phe Ser Ser Ser 1090 1095 1100 Pro Thr Lys Lys Ser Lys Ser Thr Glu Asp Gly Ala Glu Leu Glu Glu 1110 1115 Gln Lys Leu Gln Glu Glu Thr 11e Thr Phe Phe Asp Ala Arg Glu Ser 1130 1125 1135 Phe Ser Pro Glu Glu Lys Glu Glu Gly Glu Leu 11e Gly Pro Val Gly 1145 Thr Gly Leu Asp Ser Arg Val Met Val Thr Ser Ala Ala Arg Thr Glu 1160 1165 Leu Ile Leu Pro Glu Gln Asp Arg Lys Ala Asp Asp Glu Ser Lys Gly 1170 1175 1180 Ser Gly Leu Gly Pro Asn Glu Gly 1185 1190

<210> 4326

<211> 503

<212> PRT

<213> Homo sapiens

<400> 4326

Mct Ala Gly Leu Trp Leu Gly Leu Val Trp Gln Lys Leu Leu Trp

1 5 10 15

Gly Ala Ala Ser Ala Leu Ser Leu Ala Gly Ala Ser Leu Val Leu Ser

20 25 30

Leu Leu Gln Arg Val Ala Ser Tyr Ala Leu Leu Met Lys Pro Asp Gly

		35					40					45			
Arg	Glu	Phe	Phe	Gln	Gln	He	Пе	Glu	Tyr	Thr	Glu	Glu	Tyr	Arg	His
	50					55					60	•			
Met	Pro	Leu	Leu	Lys	Leu	Trp	Val	Gly	Pro	Val	Pro	Met	Val	Ala	Leu
65					70					75					80
Tyr	Asn	Λla	Glu	Asn	Val	Glu	Val	He	Leu	Thr	Ser	Ser	Lys	Gln	11e
				85				•	90					95	
Asp	Lys	Ser	Ser	Met	Tyr	Lys	Phe	Leu	Glu	Pro	Trp	Leu	Gly	Leu	Gly
			100					105					110		
Leu	Leu	Thr	Ser	Thr	Gly	Asn	Lys	Trp	Arg	Ser	Arg	Arg	Lys	Met	Leu
		115					120					125			
Thr	Pro	Thr	Phe	His	Phe	Thr	He	Leu	Glu	Asp	Phe	Leu	Asp	lle	Met
	130					135					140				
Asn	Glu	Gln	Ala	Asn	Пе	Leu	Val	Lys	Lys	Leu	Glu	Lys	His	He	Asn
145					150					155					160
G] n	Glu	Ala	Phe	Asn	Cys	Phe	Phe	Tyr	He	Thr	Leu	Cys	Ala	Leu	Asp
				165					170					175	
lle	He	Cys		Thr	Ala	Met	Gly		Asn	lle	Gly	Ala		Ser	Asn
			180					185					190		
Asp	Asp		Glu	Tyr	Val	Arg		Val	Tyr	Arg	Met		Glu	Met	He
7 31		195					200		, r.c.	,		205		m	
Phe		Arg	He	Lys	Met		Trp	Leu	Trp	Leu		Leu	Trp	Tyr	Leu
	210		6.1	6.1	Tr.	215			,	C	220	,	7.1		,,,
	Phe	Lys	Glu	GIŸ		6] U	111 S	Lys	Lys		Leu	Lys	11e	Leu	
225	DI	TL	۸	C	230 V-1	11.	A 1	C1	A	235	A	C1	Mad	A ~	240
mr	rne	ınr	asn	Ser 245	v al]	116	W19	OIU	Arg 250		asn	oru	мет	Asn 255	
Aan	C1	Acn	Cvc		Clv	Acn	Cly	Ara			110	Dro	Sor		
ASII	Gju	Asp	260	Arg	01 ý	nsp	OTY	265	Gly	261	Ма	110	270	Lys	ASII
Lve	Ara	Ara		Pho	Lou	Aen	Lau		Leu	Sor	Val	Thr		Asn	Glu
rys	Arg	275	II I C	1.116.	Pen	пор	280	r.c.u	I, C.U	561	чат	285	пър	пар	Oru
G1 v	Asn		Leu	Ser	Hic	Glu		По	Arg	Glu	Glo		Asn	Thr	Phe
013	290	5	ı, Cu	(AC)	****	295	цс.		5	o i u	300	, (/1	р		
Met		Glo	Glv	His	Asp		Thr	Ala	Ala	Ala		Asn	Trn	Ser	Leu
305	,	V. u	~4 ?		310		, ,			315					320
	Leu	Leu	Glv	Ser		Pro	Glu	Val	Gln		Lvs	Va]	Asp	His	
-,-			~ . j	~					S- 111	, 0	د، ر د.	3			

				325					330					335	
Leu	Asp	Asp	Val	Phe	Gly	Lys	Ser	Asp	Arg	Pro	Ala	Thr	Val	Glu	Asp
			340					345					350		
Leu	Lys	Lys	Leu	Arg	Tyr	Leu	Glu	Cys	Val	Пe	Lys	Glu	Thr	Leu	Arg
		355					360					365			
Leu	Phe	Pro	Ser	Val	Pro	Leu	Phe	Ala	Arg	Ser	Val	Ser	Glu	Asp	Cys
	370					375					380				
Glu	Val	Ala	Gly	Tyr	Arg	Val	Leu	Lys	Gly	Thr	Glu	Ala	Val	He	11e
385					390					395					400
Pro	Tyr	Ala	Leu	His	Arg	Asp	Pro	Arg	Tyr	Phe	Pro	Asn	Pro	Glu	Glu
				405					410					415	
Phe	Gln	Pro	Glu	Arg	Phe	Phe	Pro	Glu	Asn	Ala	Gln	Gly	Arg	His	Pro
			420					425					430		
Tyr	Ala	Tyr	Val	Pro	Phe	Ser	Ala	Gly	Pro	Arg	Asn	Cys	He	Gly	Gln
		435					440					445			
Lys	Phe	Ala	Val	Met	Glu	Glu	Lys	Thr	11e	Leu	Ser	Cys	He	Leu	Arg
	450					455					460				
His	Phe	Trp	Ile	Glu	Ser	Asn	Gln	Lys	Arg	Glu	Glu	Leu	Gly	Leu	Glu
465					470					475					480
Gly	Gln	Leu	He	Leu	Arg	Pro	Ser	Asn	Gly	lle	Trp	He	Lys	Leu	Lys
				485					490					495	
Arg	Arg	Asn	Ala	Asp	Glu	Arg									
			500												

<210> 4327

<211> 491

<212> PRT

<213> Homo sapiens

<400> 4327

		35					40					45			
Leu	Arg	Gln	Arg	Asn	Gln	Thr	Glu	Lys	Gln	Ser	Thr	Gly	Val	Tyr	Asn
	50					55					60				
Arg	Glu	Ala	Met	Leu	Asn	Phe	Cys	G1 u	Lys	G] u	Thr	Lys	Lys	Glu	Glu
65					70					75					80
Glu	Lys	Lys	Gly	Ser	Asp	Arg	Asn	Thr	Gly	Leu	Ser	Arg	Asp	Lys	Asp
				85					90					95	
Lys	Lys	Arg	Glu	Glu	Met	Lys	Glu	Val	Ala	Lys	Lys	Glu	Asp	Asp	Glu
			100					105					110		
Lys	Val	Lys	Gly	Glu	Arg	Arg	Asn	Thr	Asp	Thr	Arg	Lys	Glu	Gly	Glu
		115					120					125			
Lys	Met	Lys	Arg	Ala	Gly	Gly	Asn	Thr	Asp	Met	Lys	Lys	Glu	Лsp	Glu
	130					135					140				
Lys	Val	Lys	Arg	Gly	Thr	Gly	Asn	Thr	Asp	Thr	Lys	Lys	Asp	Asp	Glu
145					150					155					160
Lys	Val	Lys	Lys	Asn	Glu	Pro	Leu	His	Glu	Lys	Glu	Ala	Lys	Asp	Asp
				165					170					175	
Ser	Lys	Thr	Lys	Thr	Pro	Glu	Arg		Met	Pro	Ser	Gly		Thr	Lys
			180					185					190		
Pro	Ser		Gly	Pro	Ala	Lys		Glu	Glu	Glu	Ala		Pro	Ser	He
		195					200					205			
Phe		Glu	Pro	Leu	Glu		Val	Lys	Asn	Asn		Pro	GJu	Met	Thr
6.1	210					215		0		701	220	61			17 1
	va1	Asn	Val	Asn		Ser	Asp	Cys	Пе		Asn	6] u	11e	Leu	
225	DI	ть	<i>c</i> 1	A 1 -	230	C1	DL.	A	ть	235 v1	Vi a. I	1	Lau	Dlag	240
Arg	rne	Inr	Glu			61U	rne	Asn	1nr 250		vai	Lys	Leu	255	ма
Lau	Λlο	Aon	Thr	245		Aan	Acn	Hic			Dho	Alo	110		Ho
Leu	мта	ASH	260	A1 g	ΑТА	asp	nsp	265	vai	АТа	THE	АТА	270	ма	He
Mot	Lou	lve		Asn	lve	Thr	Ha		Sor	ارم ا	Aen	Lau		Ser	Asn
, or C	1200	Lyo	MIG	11.511	123.0	1111	110	1113	13()	120.0	71.511	120.0	11.515	(,C1	11.511
		275					280					285			
His	11e		G] y	Lvs	Glv	11e		Ala	He	Phe	Arg		Leu	Leu	Gln
	290	- *-				295					300				
Asn		Thr	Leu	Thr	Glu		Arg	Phe	His	Asn		Arg	His	He	Cys
305					310		9			315		,			320

Gly Gly Lys Thr Glu Met Glu Ile Ala Lys Leu Leu Lys Glu Asn Thr Thr Leu Leu Lys Leu Gly Tyr His Phe Glu Leu Ala Gly Pro Arg Met Thr Val Thr Asn Leu Leu Ser Arg Asn Met Asp Lys Gln Arg Gln Lys Arg Leu Gln Glu Gln Arg Gln Ala Gln Glu Ala Lys Gly Glu Lys Lys Asp Leu Leu Glu Val Pro Lys Ala Gly Ala Val Ala Lys Gly Ser Pro Lys Pro Ser Pro Gln Pro Ser Pro Lys Pro Ser Pro Lys Asn Ser Pro Lys Lys Gly Gly Ala Pro Ala Ala Pro Pro Pro Pro Pro Pro Pro Leu Ala Pro Pro Leu Ile Met Glu Asn Leu Lys Asn Ser Leu Ser Pro Ala Thr Gln Arg Lys Met Gly Asp Lys Val Leu Pro Ala Gln Glu Lys Asn Ser Arg Asp Gln Leu Leu Ala Ala Ile Arg Ser Ser Asn Leu Lys Gln Leu Lys Lys Val Glu Val Pro Lys Leu Leu Gln

<210> 4328

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4328

Met Arg Leu Asn Ile Leu Pro Arg Arg Arg Arg Arg Gly Arg Pro Arg

1 5 10 15

Pro Gly Pro Gly Asp Arg Gly Ala Asp Pro Gly Thr Glu Pro Gly Phe
20 25 30

Val Arg Glu Ala Asp Ala Pro Arg Ala Pro Pro Pro Lys His Ser His
35 40 45

```
Pro Met Leu Arg Arg Ala Ser Gly Ser Pro Trp Ala Pro Arg Gly Glu
                         55
Pro Gly Ala Pro Gly Gly Ser Ser Gly Glu Leu Pro Ala Gly Ala Gly
 65
                     70
                                          75
                                                              80
Arg Cys Trp Trp Glu Ala Arg Cys Thr Trp Arg Pro Gly Met Ser Gly
                - 85
                                     90
Arg Pro Arg Ser Arg Cys Ile Arg Pro Leu Pro Ala Arg Pro Asp Val
                                 105
Pro Ala Gly Ser
        115
<210> 4329
<211> 257
<212> PRT
<213> Homo sapiens
<400> 4329
Met Ala Pro Pro Ala Pro Gly Pro Ala Ser Gly Gly Ser Gly Glu Val
 1
                  5
                                     10
Asp Glu Leu Phe Asp Val Lys Asn Ala Phe Tyr Ile Gly Ser Tyr Gln
             20
                                 25
                                                      30
Gln Cys Ile Asn Glu Ala Gln Arg Val Lys Leu Ser Ser Pro Glu Arg
                             40
                                                  45
Asp Val Glu Arg Asp Val Phe Leu Tyr Arg Ala Tyr Leu Ala Gln Arg
     50
                         55
                                              60
Lys Phe Gly Val Val Leu Asp Glu Ile Lys Pro Ser Ser Ala Pro Glu
                     70
                                         75
Leu Gln Ala Val Arg Met Phe Ala Asp Tyr Leu Ala His Glu Ser Arg
                 85
                                     90
Ser Thr Ala Met Thr Val Gln Ile Leu Leu Lys Leu Asp Arg Leu Asp
            100
                                105
                                                    110
Leu Ala Arg Lys Glu Leu Lys Arg Met Gln Asp Leu Asp Glu Asp Ala
                            120
                                                125
Thr Leu Thr Gln Leu Ala Thr Ala Trp Val Ser Leu Ala Thr Gly Gly
```

Glu Lys Leu Gln Asp Ala Tyr Tyr Ile Phe Gln Glu Met Ala Asp Lys 150 155 Cys Ser Pro Thr Leu Leu Leu Leu Asn Gly Gln Ala Ala Cys His Met 170 165 Ala Gln Gly Arg Trp Glu Ala Ala Glu Gly Leu Leu Gln Glu Ala Leu 180 185 190 Asp Lys Asp Ser Gly Tyr Pro Glu Thr Leu Val Asn Leu Ile Val Leu 200 Ser Gln His Leu Gly Lys Pro Pro Glu Val Thr Asn Arg Tyr Leu Ser 210 215 Gln Leu Lys Asp Ala His Arg Ser His Pro Phe Ile Lys Glu Tyr Gln 230 235 Ala Lys Glu Asn Asp Phe Asp Arg Leu Val Leu Gln Tyr Ala Pro Ser 245 250 255 Ala

<210> 4330

<211> 119

<212> PRT

<213> Homo sapiens

<400> 4330

Met Asn Asn Ala Ala Ile Ile Asn Ile His Thr Ser Phe Leu Trp Thr

1 5 10 15

Trp Phe His Phe Leu Gly Ile Cys Pro Ala Val Glu Phe Leu Gly His
20 25 30

Leu Leu Thr Met 11e Ser Leu Leu Glu Lys Leu Pro Asp Phe Leu Leu 35 40 45

11e Phe Phe Phe Leu Leu Leu Cys Ser Val Lys Lys Pro Phe Asn 50 55 60

Ala Tyr Glu Leu Lys Pro Cys Lys Glu Ser Asp His Leu Gly Leu Asp
65 70 75 80

Arg Lys Leu Leu Asp Phe Lys Cys lle Thr Leu Arg lle Phe Cys Asp

85

90

Ser Leu Ala Ser Pro Leu Ser Ser Leu Phe Phe Leu Arg 11e His Glu 100 105 110 Leu Ala Pro Cys Leu His Ile 115 <210> 4331 <211> 934 <212> PRT <213> Homo sapiens <400> 4331 Met Leu Thr Leu Glu Glu Phe Arg Glu Leu Arg Glu Gln Pro Ser Asp 10 Pro Gln Ala Glu Gln Glu Leu He Asn Ser He Glu Gln Val Tyr Phe 20 25 30 Ser Val Asp Ser Phe Asp Ile Val Lys Tyr Glu Leu Glu Lys Leu Pro 40 Pro Val Leu Asn Leu Glu Glu Leu Glu Ala Tyr Arg Asp Lys Leu Lys 50 Gln His Gln Ala Ala Val Ser Lys Lys Val Ala Asp Leu Ile Leu Glu 70 75 Lys Gln Pro Ala Tyr Val Lys Glu Leu Glu Arg Val Thr Ser Leu Gln 90 Thr Gly Leu Gln Leu Ala Ala Val Ile Cys Thr Asn Gly Arg Arg His 100 105 110 Leu Asn lle Ala Lys Glu Gly Phe Thr Gln Ala Ser Leu Gly Leu Leu 120 Ala Asn Gln Arg Lys Arg Gln Leu Leu Ile Gly Leu Leu Lys Ser Leu 130 135 140 Arg Thr Ile Lys Thr Leu Gln Arg Thr Asp Val Arg Leu Ser Glu Met 150 155 Leu Glu Glu Glu Asp Tyr Pro Gly Ala Ile Gln Leu Cys Leu Glu Cys 170

Gln Lys Ala Ala Ser Thr Phe Lys His Tyr Ser Cys Ile Ser Glu Leu

185

190

Asn	Ser	Lys 195	Leu	Gln	Asp	Thr	Leu 200	Glu	G1n	Ile	Glu	Glu 205	Gln	Leu	Asp
Val	Ala 210	Leu	Ser	Lys	lle	Cys 215	Lys	Asn	Phe	Asp	11e 220	Asn	His	Tyr	Thr
Lve		Gla	Gla	Δla	Tyr		Lau	Lou	G1v	Lve		Gln	Thr	Ala	Met
225	, (1)	OIII	OIII	Mid	230	m g	isc a	15C G	01,	235		0111		7110	240
	Gln	Leu	His	Met		Phe	Thr	Gln	Ala		His	Asn	Thr	Val	
				245					250					255	
Gln	Val	Val	Leu	Gly	Tyr	Val	Glu	Leu	Cys	Ala	G1 y	Asn	Thr	Asp	Thr
			260					265					270		
Lys	Phe	Gln	Lys	Leu	Gln	Tyr	Lys	Asp	Leu	Cys	Thr	His	Va]	Thr	Pro
		275					280					285			
Asp	Ser	Tyr	He	Pro	Cys	Leu	Ala	Asp	Leu	Cys	Lys	Ala	Leu	Trp	Glu
	290					295					300				
	Met	Leu	Ser	Tyr		Arg	Thr	Met	Glu		His	Glu	Lys	His	
305	C1	Δ	T1	A 1 -	310	A 1 -	C	C1	C1	315	۸	Maa	71.	C1	320
ASN	GIU	Asp	Inr	325	Ser	Ата	ser	Glu	330	ser	ASN	Met	116	335	Inr
Glu	Glu	Thr	Asn		Asn	Arø	Glv	Tvr		lvs	Lvs	Lys	Leu		His
014	014		340		p	8	01)	345	110	11,0	13,0	D, S	350	014	
Gly	Leu	Thr		He	Trp	Gln	Asp	Val	Gln	Leu	Lys	Val	Lys	Thr	Tyr
		355					360					365			
Leu	Leu	Gly	Thr	Asp	Leu	Ser	lle	Phe	Lys	Tyr	Asp	Asp	Phe	He	Phe
	370					375					380				
Val	Leu	Asp	He	Пе	Ser	Arg	Leu	Met	Gln	Val	Gly	Glu	Glu	Phe	Cys
385					390					395					400
Gly	Ser	Lys	Ser		Val	Leu	Gln	Glu		He	Arg	Lys	Gln		Val
				405					410					415	
Asn	Tyr	Phe		Asn	Tyr	His	Arg		Arg	Leu	Asp	Glu		Arg	Met
DI	1	C1	420	C1	тъ	Т	C1	425	Corr	D	V1	1	430	Λ	Dlan
Pne	Leu	435	Asn	GIU	Inr	rp	440	Leu	Cys	Pro	vai	Lys 445	ser	Asn	rne
Ser	He		Gln	Leu	His	Glu		Lvs	Phe	Met	Glu	Gln	Ser	Arg	Ser
	450					455		2,0			460	~ • • • • •	_ ~,		
Pro		Va]	Ser	Pro	Ser		Gln	Pro	Val	Ser		Ser	Ser	Lys	Thr
465					470					475					480

Val	Thr	Leu	Phe	Glu	Gln	Tyr	Cys	Ser	Gly	Gly	Asn	Pro	Phe		He
				485					490					495	
Gln	Ala	Asn	His	Lys	Asp	Glu	Glu	Thr	Glu	Asp	Val	Leu	Ala	Ser	Asn
			500					505					510		
Gly	Tyr	Glu	Ser	Asp	Glu	Gln	Glu	Lys	Ser	Ala	Tyr	Gln	Glu	Tyr	Asp
		515					520					525			
Ser	Asp	Ser	Asp	Val	Pro	Glu	Glu	Leu	Lys	Arg	Asp	Tyr	Val	Asp	Glu
	530					535					540				
Gln	Thr	Gly	Asp	Gly	Pro	Val	Lys	Ser	Val	Ser	Arg	Glu	Thr	Leu	Lys
545					550					555					560
Ser	Arg	Lys	Lys	Ser	Asp	Tyr	Ser	Leu	Asn	Lys	Val	Asn	Ala	Pro	He
				565					570					575	
Leu	Thr	Asn	Thr	Thr	Leu	Asn	Val	Пе	Arg	Leu	Val	Gly	Lys	Tyr	Met
			580					585					590		
Gln	Met		Asn	He	Leu	Lys	Pro	lle	Ala	Phe	Asp		lle	His	Phe
		595					600					605			
Met		Gln	Leu	Phe	Asp		Tyr	Leu	Tyr	Ala		Tyr	Thr	Phe	Phe
	610					615					620				
	Arg	Asn	Asp	Ser		Glu	Ser	Thr	Gly		Gly	Leu	Ser	Ser	
625					630					635					640
Arg	Leu	Arg	Thr		Leu	Asn	Arg	He		Glu	Ser	Leu	He		Leu
				645					650				6.1	655	
Glu	Val	Ser		Asp	Pro	Thr	Ala		Leu	Thr	Ala	Ala		Glu	Arg
,	0.1		660	n	~			665	0			., .	670		T)
Lys	Glu	-	Val	Pro	Ser	Pro	His	Leu	Ser	His	Leu		Val	Leu	Thr
C	61	675	T)	,	ar.	6.1	680	A 7	C1		V. 1	685	. 1	T)	C.1
Ser		Asp	Thr	Leu	lyr		Leu	Ala	GIU	Arg		val	Ala	Inr	Glu
c	690	V . 1	DI		A 1 .	695	C1	DI.	C1	DI.	700	C1	D	112	1
	Leu	vaı	rne	Leu		GIU	Gln	rne	61u		Leu	GIN	Pro	HIS	
705	A 1	V. 1	Mart	Dage	710	Vol.	1	Luc	Due	715	Lave	Cln	Cla	Dha	720
Asp	Ala	vai	мет	725	АТа	vai	Lys	Lys	730	rne	Leu	6111	GIN	735	Tyr
C	Cla	Thus	Val		Thu	A 1 a	Con	C1		A	Luc	Duo	11.		Tana
261.	GIII	1111		Ser	1111	на	Ser		Leu	Arg	LyS	110		ıÿı	пр
11.	Vol	Λla	740	Lvc	A1.	Lou	Acr	745	C1	Cls	Mo+	Lov	750	Lou	Mot
116	val		оту	LyS	ита	Leu	Asp	ı yı	OIU	011)	we t		Leu	Leu	мес
		755					760					765			

Ala Asn Val Lys Trp Asp Val Lys Glu lle Met Ser Gln His Asn lle Tyr Val Asp Ala Leu Leu Lys Glu Phe Glu Gln Phe Asn Arg Arg Leu Asn Glu Val Ser Lys Arg Val Arg lle Pro Leu Pro Val Ser Asn lle Leu Trp Glu His Cys Ile Arg Leu Ala Asn Arg Thr Ile Val Glu Gly Tyr Ala Asn Val Lys Lys Cys Ser Asn Glu Gly Arg Ala Leu Met Gln Leu Asp Phe Gln Gln Phe Leu Met Lys Leu Glu Lys Leu Thr Asp Ile Arg Pro 11e Pro Asp Lys Glu Phe Val Glu Thr Tyr 11e Lys Ala Tyr Tyr Leu Thr Glu Asn Asp Met Glu Arg Trp lle Lys Glu His Arg Glu Tyr Ser Thr Lys Gln Leu Thr Asn Leu Val Asn Val Cys Leu Gly Ser His Ile Asn Lys Lys Ala Arg Gln Lys Leu Leu Ala Ala Ile Asp Asp lle Asp Arg Pro Lys Arg

<210> 4332

<211> 107

<212> PRT

<213> Homo sapiens

<400> 4332

 Met Glu Ala Val Arg Thr Leu Gly Ser Ser Val Pro Leu Leu Ser Val

 1
 5
 10
 15

 Gly Pro Leu Arg Asn Pro Glu Phe Leu Val Gly Leu Leu Leu Leu Ser
 20
 25
 30

 His 11e Pro Pro Tyr Pro Gly Met Cys Arg Phe Leu Leu Asp Leu Ser
 35
 40
 45

<210> 4333

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4333

Met Arg Leu Ala Asn Phe Ser Tyr Phe Trp Ile Glu Thr Gly Phe His

1 5 10 15

Arg Val Ala Gln Ala Gly Leu Glu Leu Leu Gly Ser Ser Asp Pro Pro
20 25 30

Thr Leu Ala Ser Gln Arg Val Gly Ile Thr Gly Val Ser His Cys Ser 35 40 45

Gln Leu Leu Gly Arg Leu Gly His Glu Asn Cys Phe Asn Pro Glu Gly 50 55 60

Gly Val Cys Ser Glu Pro Arg Ser Cys His Cys Thr Pro Ala Trp Ala 65 70 .75 80

Thr Glu Gly Asp Ser Val Ser Lys Lys Lys Lys Val Lys Glu Gly
85 90 95

Phe Pro Glu Trp Pro Leu Asp 100

<210> 4334

<211> 103

<212> PRT

<213> Homo sapiens

<400> 4334 Met Val Val Val Pro Ile Met Glu Asn Leu Leu Lys Ile Asn Cys Asn 1 5 10 15 Gly Leu Arg Thr Pro Pro Pro His Val Arg Ala Tyr Glu Gly 11e Phe 20 25 30 Phe Leu Arg Gln Lys Lys Glu His Cys Arg Arg Pro Ser Asp Phe Phe 40 Phe Pro Leu Phe Leu Phe Gln Arg Ala His Leu Leu Asp Asn Thr Glu 50 Arg Leu Glu Arg Ser Ser Arg Arg Leu Glu Ala Gly Tyr Gln Ile Ala 70 75 Val Glu Thr Gly Lys Asn Ser Glu Ser Glu Gln Ile Val Leu Leu Met 85 90 95 His Ser Ser Leu His Asn Thr 100

<210> 4335

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4335

 Met Glu Glu Glu Gly Asn Thr Ser Thr Val Thr Gln Gln Val Arg Gly Arg

 1
 5
 10
 15

 Thr Arg Thr Lys Pro Arg Ser Leu His Leu Ser Pro Gly Leu Leu Val
 20
 25

 Thr Phe Leu Gln Glu Gly Leu Ser Lys Ser Ala Gly Ala Gln Arg Gln
 36

 40
 45

Gly Pro Thr Tyr Pro Cys Arg Asp Thr Glu Arg Thr Lys Thr Lys Pro
50 55 60

Gln Gly Gly Gln Gln Pro Gln Thr Ser His Gly Leu Gly Leu Phe Ser 65 70 75 80

lle Tyr Leu Gly Arg Phe Ile Lys Ser Thr Phe Phe Arg Glu Leu Arg

Lys Glu Lys Lys Tyr Ala Pro Phe Leu Ser Leu Gly Asp Ser Tyr Ser Arg Gly Thr <210> 4336 <211> 257 <212> PRT <213> Homo sapiens <400> 4336 Met Pro Leu Ala Cys Glu His Pro Val Gly Val Ser Ser Ser Val Gly Asn Ala Gly Arg Ala Gly Val Gly Thr Gln Ala Trp Gly Thr Thr Glu Arg Thr Gln His Pro Gly Pro Ala Gln His Cys Pro Cys Gly Leu Arg Val Phe Val Leu Gln Glu Lys Arg Val Val Ser Arg Asn Trp Ala Arg Gly Thr Cys Gly Pro Arg Val Thr Asn Glu Met Leu Glu Asp Glu Asp Ala Glu Asp His Gly Gly Thr Phe Cys Leu Gly Glu Leu Val Glu Leu Ala Val Thr Met Glu Asn Lys Ala Glu Gly Lys Arg Ile Val Ser Glu Lys Pro Thr Arg Ala Arg Asn Gln Gly Ile Glu Gly Ser Pro Gly Gly Arg Val Thr Arg Ser Pro Pro Thr Gln Val Ala lle Ser Ser Asp Ser Ala Arg Lys Gly Ser Trp Glu Pro Trp Ser Arg Pro Val Gly Glu Pro Pro Glu Ala Gly Trp Asp Tyr Ala Gln Trp Lys Gln Glu Arg Glu Gln

He Asp Leu Ala Arg Leu Ala Arg His Arg Asp Ala Gln Gly Asp Trp

180 190 185 Arg Arg Pro Trp Asp Leu Asp Lys Ala Lys Ser Thr Leu Gln Asp Cys 200 205 Ser Gln Leu Arg Gly Glu Gly Pro Ala Arg Ala Gly Ser Arg Arg Gly 220 210 215 Glu Pro Thr Pro Thr Ser Ser Leu Pro Ser Leu Ala Leu Phe 11e Phe 230 235 240 His Pro Leu Val Leu Ser Phe Leu Cys Leu Leu Val Ser Tyr Phe Gln 250 245 255 Ser

<210> 4337

<211> 117

<212> PRT

<213> Homo sapiens

<400> 4337

Met Pro Ser Arg Gln Leu Glu Asp Pro Gly Ala Gly Thr Pro Ser Pro
1 5 10 15

Val Arg Leu His Ala Leu Ala Gly Phe Gln Gln Arg Ala Leu Cys His 20 25 30

Ala Leu Thr Phe Pro Ser Leu Gln Arg Leu Val Tyr Ser Met Cys Ser 35 40 45

Leu Cys Gln Glu Glu Asn Glu Asp Met Val Pro Asp Ala Leu Gln Gln 50 55 60

Asn Pro Gly Ala Phe Arg Leu Ala Pro Ala Leu Pro Ala Arg Pro His 65 70 75 80

Arg Gly Leu Ser Thr Phe Pro Gly Ala Glu His Cys Leu Arg Ala Ser 85 90 95

Pro Lys Thr Thr Leu Ser Gly Gly Phe Phe Val Ala Val Ile Glu Arg 100 105 110

Val Glu Met Pro Thr

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<211> 232
<212> PRT
<213> Homo sapiens
<400> 4338
Met Leu Met Glu Thr Ala Ala Arg Thr Ala Arg Ala Thr Ser Cys Pro
                 5
                                    10
Val Gln Gly Asp Gly Gln Glu Val Thr Cys Arg Gly Ala Leu Ala Leu
                                 25
                                                     30
             20
Pro Ser Ala Gln Leu Asp Leu Leu Gly Leu Gly Leu Val Glu Pro Gly
                             40
                                                 45
Thr Gln Cys Gly Pro Arg Met Val Cys Gln Ser Arg Arg Cys Arg Lys
    50
                         55
Asn Ala Phe Gln Glu Leu Gln Arg Cys Leu Thr Ala Cys His Ser His
                     70
                                         75
Gly Val Cys Asn Ser Asn His Asn Cys His Cys Ala Pro Gly Trp Ala
                85
                                     90
Pro Pro Phe Cys Asp Lys Pro Gly Phe Gly Gly Ser Met Asp Ser Gly
            100
                                105
                                                    110
Pro Val Gln Ala Glu Asn His Asp Thr Phe Leu Leu Ala Met Leu Leu
                           120
                                                125
Ser Val Leu Leu Pro Leu Leu Pro Gly Ala Gly Leu Ala Trp Cys Cys
    130
                        135
Tyr Arg Leu Pro Gly Ala His Leu Gln Arg Cys Ser Trp Gly Cys Arg
                    150
                                        155
Arg Asp Pro Ala Cys Ser Gly Pro Lys Asp Gly Pro His Arg Asp His
                                    170
                165
Pro Leu Gly Gly Val His Pro Thr Glu Leu Gly Pro Thr Ala Thr Gly
            180
                                185
                                                    190
Gln Ser Trp Pro Leu Asp Pro Glu Asn Ser His Glu Pro Ser Ser His
                            200
Pro Glu Lys Pro Leu Pro Ala Val Ser Pro Asp Pro Gln Asp Gln Val
    210
                        215
                                             220
Gln Met Pro Arg Ser Cys Leu Trp
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<210> 4338

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<211> 141

<212> PRT

<213> Homo sapiens

<400> 4339

Met Met Gly Ser Thr His lle Tyr Asp Met Ser Thr Val Met Ser Arg

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Lys Gly Pro Ala Pro Glu Leu Gln Gly Val Glu Val Ala Leu Ala Pro 20 25 30

Glu Glu Leu Glu Leu Asp Pro Met Ala Met Thr Gln Lys Tyr Glu Glu 35 40 45

His Val Arg Glu Gln Gln Ala Gln Val Glu Lys Glu Asp Phe Ser Asp 50 55 60

Met Val Ala Glu His Ala Ala Lys Gln Lys Val Gly Ala Ser Arg Gly
65 70 75 80

Ala Gly Leu Gly Glu Ser Gln Gly Pro Trp Pro Ala Val Phe Ser Gly

85 90 95

Met Val Pro Ser Ser Gly Glu Ser Glu Gly Gly Leu Cys Leu Leu 100 105 110

Cys Ala Ser Leu Asp Leu Glu Val Leu Glu lle Leu Gln Trp Ala Ala 115 120 125

Leu Phe Lys Asp Asp Glu Gly Glu Glu Leu Ser Gln Val 130 135 140

<210> 4340

<211> 352

<212> PRT

<213> Homo sapiens

<400> 4340

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Lys	Gly	Asp	Val	Pro	Lys	Asp	Thr	Leu	Asp	Asp	Leu	Phe	Pro	Asn	Glu
			20					25					30		
Λsp	Glu	Gln	Ser	Pro	Ala	Pro	Ser	Pro	Gly	Gly	Gly	Asp	Val	Ser	Gly
		35					40					45			
Gln	His	Gly	Gly	Tyr	Glu	He	Pro	Ala	Arg	Leu	Arg	He	Leu	His	Asn
	50					55					60				
Leu	Val	He	Gln	Tyr	Ala	Ser	Gln	Gly	Arg	Tyr	Glu	Val	Ala	Val	Pro
65					70					75					80
Leu	Cys	Lys	Gln	Ala	Leu	Glu	Asp	Leu	Glu	Lys	Thr	Ser	Gly	His	Asp
				85					90					95	
His	Pro	Asp	Val	Ala	Thr	Мет	Leu	Asn	Пе	Leu	Ala	Leu	Val	Tyr	Arg
			100					105					110		
Asp	Gln	Asn	Lys	Tyr	Lys	Glu	Ala	Ala	llis	Leu	Leu	Asn	Asp	Ala	Leu
		115					120					125			
Ala	lle	Arg	Glu	Lys	Thr	Leu	Gly	Lys	Asp	His	Pro	Ala	Val	Ala	Ala
	130					135					140				
Thr	Leu	Asn	Asn	Leu	Ala	Val	Leu	Tyr	G1 y	Lys	Arg	Gly	Lys	Tyr	Lys
145					150					155					160
Glu	Ala	Glu	Pro		Cys	Lys	Arg	Ala		Glu	He	Arg	Glu		Val
				165					170					175	
Leu	Gly	Lys		His	Pro	Asp	Val		Lys	Gln	l.eu	Ser		Leu	Ala
			180					185					190		_
Leu	Leu		GIn	Asn	GIn	Gly		Ala	GJu	Glu	Val		Tyr	Tyr	Tyr
		195		0.1			200	m.			0.1	205			
Arg		Ala	Leu	Glu	He	Tyr	Ala	Thr	Arg	Leu		Pro	Asp	Asp	Pro
	210	. 1	,	T.I.	,	215				0	220	T		,	6.1
	val	Ala	Lys	Inr		Asn	Asn	Leu	Ala		Cys	lyr	Leu	Lys	
225		Tr.	61		230	61	TI	,	т	235	C1	7.1	,	TI	240
GIY	Lys	lyr	GIN		Ala	G] u	Ihr	Leu		Lys	61n	116	Leu		Arg
41.	112 -	C1	1	245	F)I	C1	C	V . 1	250	C1	Δ	Λ		255	11.
Ala	HIS	oru		01U	rne	Gly	ser		Asn	ОГŸ	Asp	Asn		110	311
Twe	Mot	u; ~	260	C.L.	Cl.	Λ	C1	265	Ç.,	1	A	1	270	A 22.00	Λ
пр	мет	275	пта	oru	GIU	Arg	280	oru	Ser	LyS	лър	285	vi g	m g	nsk
							400					200			

 Ser
 A1a
 Pro
 Tyr
 Gly
 Glu
 Tyr
 Gly
 Ser
 Trp
 Tyr
 Lys
 A1a
 Cys
 Lys
 Val

 Asp
 Ser
 Pro
 11e
 Val
 Asn
 Thr
 Thr
 Leu
 Arg
 Ser
 Leu
 Gly
 Ala
 Leu
 Tyr

 305
 310
 310
 315
 315
 320
 320

 Arg
 Arg
 Gln
 Gly
 Lys
 Leu
 Glu
 Ala
 Ala
 Hlis
 Thr
 Leu
 Glu
 Asp
 Cys
 Ala

 Ser
 Arg
 Thr
 Ala
 Ser
 Arg
 Trp
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 Gln
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 Arg
 Trp

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<211> 112

<212> PRT

<213> Homo sapiens

<400> 4341

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Gly Gly Ser Pro Arg Trp Leu Ala Leu Phe Leu Phe Cys Phe Phe Phe

105

110

<210> 4342

<211> 1253

<212> PRT

<213> Homo sapiens

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			20					25					30		
Val	Glu	Ala	Glu	Ser	Pro	Gly	Pro	Val	Pro	Ala	Lys	Pro	Lys	Leu	He
		35					40					45			
Glu	Pro	Leu	Asp	Tyr	Glu	Asn	Val	Ile	Val	Gln	Lys	Lys	Thr	Gln	11e
	50					55					60				
Leu	Asn	Asp	Cys	Leu	Arg	Glu	Met	Leu	Leu	Phe	Pro	Tyr	Asp	Asp	Phe
65					70					75					80
Gln	Thr	Ala	He	Leu	Arg	Arg	Gln	Gly	Arg	Tyr	11e	Cys	Ser	Thr	Val
				85					90					95	
Pro	Ala	Lys	Ala	Glu	Glu	Glu	Ala	Gln	Ser	Leu	Phe	Val	Thr	Glu	Cys
			100					105					110		
He	Lys	Thr	Tyr	Asn	Ser	Asp	Trp	His	Leu	Va]	Asn	Tyr	Lys	Tyr	Glu
		115					120					125			
Asp		Ser	Gly	Glu	Phe		Gln	Leu	Pro	Asn		Val	Val	Lys	Leu
	130					135					140				
	Lys	Leu	Pro	Val		Val	Tyr	Glu	Val		Glu	Glu	Val	Asp	
145					150					155					160
Asp	GJu	Asp	Ala		Ser	Leu	GIy	Pro		Lys	θŢŷ	GIy	Пe		Lys
	0.1	m		165		C.I.			170	C			C	175	T 1
His	GIy	l rp		iyr	Lys	61 y	Asn		Asn	Ser	Ala	116	Ser	Val	lhr
M .	4	C	180	,		Α.	121	185	n:	1	11	C.I.	190	C1	.
Met	Arg	5er 195	rne	Lys	AJTg	Arg					116	205	Leu	01 À	ASP
Cly	San	100	Aan	Lau	Acn	Dho			Acn		Luc			Lvc	Clu
GLY	210	1 y 1	ASII	Leu	ASII	215	1 y J	Lys	nsp	Oju	220	116	Ser	Lys	Olu
Dro		C1v	Sor	110	Pho		Acn	Sor	Cve	Mot		Val	Va]	Gln	Aen
225	LyS	Oly	361	116	230	Leu	nsb	301	Cys	235	OLY	, (1)	val	OIII	240
	lvs	Val	Aro	Aro		Ala	Phe	Glu	Leu		Met	Gln	Asp	Lvs	
11011	د، زي،	• (1 1	ni g	245	1 110	, i i d	7 710	oru	250	ی زید	.16. ((111	цор	255	0.01
Ser	Tvr	Leu	Leu		Λla	Asn	Ser	Glu		Glu	Mei	Glu	G1 u		Пе
			260					265					270	1-	

Thr	He	Leu	Asn	Lys	He	Leu	G1n	Leu	Asn	Phe	Glu		Ala	Met	Gln
		275					280					285			
Glu	Lys	Arg	Λsn	Gly	Asp	Pro	His	Glu	Asp	Asp	Glu	Gln	Ser	Lys	Leu
	290					295					300				
Glu	Gly	Ser	Gly	Ser	Gly	Leu	Asp	Ser	Tyr	Leu	Pro	Glu	Leu	Ala	Lys
305					310					315					320
Ser	Ala	Arg	Glu	Ala	Glu	He	Lys	Leu	Lys	Ser	Glu	Ser	Arg	Val	Lys
				325					330					335	
Leu	Phe	Tyr	Leu	Asp	Pro	Asp	Ala	Gln	Lys	Leu	Asp	Phe	Ser	Ser	Ala
			340					345					350		
Glu	Pro	Glu	Val	Lys	Ser	Phe	Glu	Glu	Lys	Phe	Gly	Lys	Arg	He	Leu
		355					360					365			
Val	Lys	Cys	Asn	Asp	Leu	Ser	Phe	Asn	Leu	Gln	Cys	Cys	Val	Ala	Glu
	370					375					380				
Asn	Glu	Glu	Gly	Pro	Thr	Thr	Asn	Val	Glu	Pro	Phe	Phe	Va]	Thr	Leu
385					390					395					400
Ser	Leu	Phe	Asp	He	Lys	Tyr	Asn	Arg	Lys	He	Ser	Ala	Asp	Phe	His
				405					410					415	
Val	Asp	Leu	Asn	His	Phe	Ser	Va]	Arg	Gln	Met	Leu	Ala	Thr	Thr	Ser
			420					425					430		
Pro	Ala	Leu	Met	Asn	Gly	Ser	Gly	Gln	Ser	Pro	Ser	Va]	Leu	Lvs	G1 y
		435					440					445			
lle	Leu	His	Glu	Ala	Ala	Met	Gln	Tyr	Pro	Lys	G]n	G] y	He	Phe	Ser
	450					455					460				
Val	Thr	Cys	Pro	His		Asp	He	Phe	Leu		Ala	Arg	He	Glu	
465					470					475					480
Val	Leu	Gln	Gly		lle	Thr	His	Cys		Glu	Pro	Tyr	Met		Ser
				485					490					495	
Ser	Asn	Ser	Ser	Lvs	Val	Ala	Gln	lvs	Val	Leu	Lve	Asn	Ala	lvs	Gln
001	p	001	500	227.0		,		505	.01	13.0			510	10,10	
Ala	Cvs	Gln		Lou	Glv	Gln	Tyr		Met	Pro	Phe	Ala		Ala	Ala
.,,,,	Cys	515	.ug	12 C U	Oly	9111	520	131 8		110	1110	525		, 1, 1 Cl	.,, .
Arø	Thr		Phe	lve	Asn	Ala	Ser	Glv	Asn	Len	Asn		Asn	Ala	Arø
6	530			2,3	۹	535	~ ~ .	Caj			540	,			8
Pho	Sor	Ala	116	Tun	Ance	61n	Acr	Son	Acr	Lvc	Lov	Sor	Aco	Acn	Acn

545					550					555					560
Met	Leu	Lys	Leu	Leu	Ala	Asp	Phe	Arg	Lys	Pro	Glu	Lys	Met	Ala	Lys
				565					570					575	
Leu	Pro	Val	He	Leu	Gly	Asn	Leu	Asp	He	Thr	He	Asp	Asn	Val	Ser
			580					585					590		
Ser	Asp	Phe	Pro	Asn	Tyr	Val	Asn	Ser	Ser	Tyr	He	Pro	Thr	Lys	Gln
		595					600					605			
Phe	Glu	Thr	Cys	Ser	Lys	Thr	Pro	lle	Thr	Phe	Glu	Val	Glu	Glu	Phe
	610					615					620				
Val	Pro	Cys	He	Pro	Lys	His	Thr	Gln	Pro	Tyr	Thr	He	Tyr	Thr	Asn
625					630					635					640
His	Leu	Tyr	Val	Tyr	Pro	Lys	Tyr	Leu		Tyr	Asp	Ser	Gln	Lys	Ser
				645					650					655	
Phe	Ala	Lys		Arg	Asn	He	Λla		Cys	11e	Glu	Phe		Asp	Ser
			660			_		665					670		
Asp	Glu		Asp	Ser	Gln	Pro		Lys	Cys	He	Tyr		Arg	Pro	G1 y
0.1	Б	675	D.	m.			680	D.			., .	685			
Gly		Val	Phe	Ihr	Arg		Ala	Phe	Ala	Ala		Leu	HIS	HIS	HIS
C I	690	D	C 1	101	т	695	C1	7.1	ī	11	700	1	D.	TI.	C1
	Asn	Pro	Glu	Pne		Asp	61 u	116	Lys	11e	61u	Leu	Pro	Inr	
705	U; o	C1	Luc	uio	710	Lan	Lou	Lau	Than	715	Dho	ui a	Vo.1	Son	720
Leu	nis	Gju	Lys	725	nis	Leu	Leu	Leu	730	Phe	гпе	1112	vai	735	Cys
Aen	Aen	Ser	Ser		Glv	Ser	Thr	Lve		Arg	Asn	Val	Val		Thr
пор	изп	501	740	12)3	Oly	501	, , , ,	745	Lyo	AI S	пор	, (1)	750	Olu	1117
Gln	Val	Glv		Ser	Trp	Leu	Pro		Leu	Lys	Asp	Glv		Val	Val
		755	- , -				760				,	765	0		
Thr	Ser		Gln	His	lle	Pro		Ser	Ala	Asn	Leu		Ser	Gly	Tyr
	770					775					780				
Leu	Gly	Tyr	Gln	Glu	Leu	G] y	Met	Gly	Arg	His	Tyr	Gly	Pro	Glu	He
785					790					795					800
Lys	Trp	Val	Asp	Gly	Gly	Lys	Pro	Leu	Leu	Lys	He	Ser	Thr	His	Leu
				805					810					815	
Val	Ser	Thr	Val	Tyr	Thr	Gln	Asp	Gln	His	Leu	His	Asn	Phe	Phe	Gln
			820					825					830		
Tyr	Cys	Gln	Lys	Thr	Glu	Ser	Gly	Ala	Gln	Ala	Leu	Gly	Asn	Glu	Leu

		835					840					845			
Val	Lys	Tyr	Leu	Lys	Ser	Leu	His	Ala	Met	Glu	Gly	His	Val	Met	He
	850					855					860				
Ala	Phe	Leu	Pro	Thr	He	Leu	Asn	Gln	Leu	Phe	Arg	Val	Leu	Thr	Arg
865					870					875					880
Ala	Thr	Gln	Glu	Glu	Val	Ala	Val	Asn	Val	Thr	Arg	Val	11e	He	His
				885					890					895	
Val	Val	Ala	Gln	Cys	His	Glu	Glu	Gly	Leu	Glu	Ser	His	Leu	Arg	Ser
			900					905					910		
Tyr	Val	Lys	Tyr	Ala	Tyr	Lys	Ala	Glu	Pro	Tyr	Val	Ala	Ser	Glu	Tyr
		915					920					925			
Lys	Thr	Val	His	Glu	Glu	Leu	Thr	Lys	Ser	Met	Thr	Thr	Пe	Leu	Lys
	930					935					940				
Pro	Ser	Ala	Asp	Phe	Leu	Thr	Ser	Asn	Lys	Leu	Leu	Lys	Tyr	Ser	Trp
945					950					955					960
Phe	Phe	Phe	Asp	Val	Leu	He	Lys	Ser	Met	Ala	Gln	His	Leu	Пе	Glu
				965					970					975	
Asn	Ser	Lys	Val	Lys	Leu	Leu	Arg	Asn	Gln	Arg	Phe	Pro	Ala	Ser	Tyr
			980					985					990		
His	His	Ala	Val	Glu	Thr	Val	Val	Asn	Met	Leu	Met	Pro	His	He	Thr
		995					1000					1005			
Gln	Lys	Phe	Arg	Asp	Asn	Pro	Glu	Ala	Ser	Lys	Asn	Ala	Asn	His	Ser
	1010					1015					1020				
		Val	Phe			Arg	Cys	Phe			Met	Asp	Arg	Gly	
102					1030					1035					1040
Val	Phe	Lys			Asn	Asn	Tyr			Cys	Phe	Ala		Gly	Asp
_				1045		_			1050					1055	_
Pro	Lys			Phe	Glu	Tyr			Glu	Phe	Leu			Val	Cys
			1060	æ	7.1	D.		1065		D	14		1070	C1	,
Asn			HIS	lyr	11e			Asn	i.eu	Pro			Phe	Gly	Lys
C1		1075	C1	Α	T		1080	1	C1	1		1085	C	1	Tl
		11e	GIN	Arg			Asp	Leu	GIN			lyr	Ser	Leu	inr
	1090	DI	C	Δ		1095	Dl	1	V 1		1100	1	1	A	Clo
		rne	cys			пıs	rne	Leu			Leu	Leu	Leu	Arg	
1109 Val		Thr	Ala		61n	61	Pho	Arc		1115 Val	Ara	Lou	مال	Ala	1120
101	VIIV	1 1 1 3	1110	LCU	13 1 1 1	11111	1 1111	αP	11111	101	7312	1.3074	1 1 1 7 7	(1) [1 1 1

			,	1125					1130					1135	
Ser	Val	Leu	Lys	Asn	Leu	Leu	He	Lys	His	Ser	Phe	Asp	Asp	Arg	Tyr
			1140					1145					1150		
Ala	Ser	Arg	Ser	His	Gln	Ala	Arg	He	Ala	Thr	Leu	Tyr	Leu	Pro	Leu
		1155					1160					1165			
Phe	Gly	Leu	Leu	lle	Glu	Asn	Val	Gln	Arg	lle	Asn	Val	Arg	Asp	Val
	1170]	175					1180				
Ser	Pro	Phe	Pro	Val	Asn	Ala	Gly	Met	Thr	Val	Lys	Asp	Glu	Ser	Leu
118	5				1190					1195]	1200
Ala	Leu	Pro	Ala	Val	Asn	Pro	Leu	Val	Thr	Pro	Gln	Lys	Gly	Ser	Thr
			:	1205					1210					1215	
Leu	Asp	Asn	Ser	Leu	His	Lys	Asp	Leu	Leu	Gly	Ala	lle	Ser	Gly	He
			1220					1225					1230		
Gly	Asn	Ala	Pro	Cys	Ser	Cys	Gly	Leu	Leu	Ser	Thr	He	Thr	Leu	Lys
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Val	Ser	Trp	Ser	Gln											
	1250														
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Phe	His	His	lle	Gly	Gln	Ala	Gly	Leu	Glu	Leu	Leu	Thr	Ser	Ser	Asp
			20					25					30		
Pro	Pro	Thr	Ser	Ala	Ser	Gln	Ser	Ala	Gly	He	Thr	Gly	Met	Ser	His
		35					40					45			
His	Thr	Arg	Leu	Ser	Asn	Thr	He	Leu	Ser	Arg	Ser	Gly	Glu	Arg	Gly
	50					- 55					60				
His	Pro	Cys	Leu	Val	Pro	Val	Phe	Lys	Gly	Asn	Ala	Ser	Ser	Phe	Cys
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Pro Phe Ser lle lle Leu Ala Val Phe Val lle Asn Ser Ser Tyr Tyr

85 90 95 Phe Glu Ile His Ser Ile Ser Thr 100 <210> 4344 <211> 772 <212> PRT <213> Homo sapiens <400> 4344 Met Asp Thr Glu Phe Gly Ala Ser Ser Phe Phe His Ser Pro Ala Ser 10 Cvs His Glu Ser His Ser Ser Leu Ser Pro Glu Ser Ser Ala Pro Gln 25 His Ser Ser Pro Ser Arg Ser Ala Leu Lys Leu Leu Thr Ser Val Glu 40 45 Val Asp Asn Ile Glu Pro Ser Ala Phe His Arg Gln Gly Leu Pro Lys · 55 60 Ala Pro Gly Trp Thr Glu Lys Asn Ser His His Ser Trp Glu Pro Leu 75 70 65 Asp Ala Pro Glu Gly Lys Leu Gln Gly Ser Arg Cys Asp Asn Ser Ser 90 Cys Ser Lys Leu Pro Pro Gln Glu Gly Arg Gly 11e Ala Gln Glu Gln 100 105 110 Leu Phe Gln Glu Lys Lys Asp Pro Ala Asn Pro Ser Pro Val Met Pro 120 125 Gly Ile Ala Thr Ser Glu Arg Gly Asp Glu His Ser Leu Gly Cys Ser 135 140 Pro Ser Asn Ser Ser Ala Gln Pro Ser Leu Pro Leu Tyr Arg Thr Cys 150 155 145 His Pro 11e Met Pro Val Ala Ser Ser Phe Val Leu His Cys Pro Asp

170

190

Pro Val Gln Lys Thr Asn Gln Cys Leu Gln Gly Gln Ser Leu Lys Thr

Ser Leu Thr Leu Lys Val Asp Arg Gly Ser Glu Glu Thr Tyr Arg Pro

185

165

		195					200					205			
Glu	Phe	Pro	Ser	Thr	Lys	G1 y	Leu	Val	Arg	Ser	Leu	Ala	Glu	Gln	Phe
	210					215					220				
Gln	Arg	Met	Gln	Gly	Val	Ser	Met	Arg	Asp	Ser	Thr	Gly	Phe	Lys	Asp
225					230					235					240
Arg	Ser	Leu	Ser	Gly	Ser	Leu	Arg	Lys	Asn	Ser	Ser	Pro	Ser	Asp	Ser
				245					250					255	
Lys	Pro	Pro	Phe	Ser	Gln	Gly	Gln	Glu	Lys	Gly	His	Trp	Pro	Trp	Ala
			260					265					270		
Lys	Gln	Gln	Ser	Ser	Leu	Glu	Gly	Gly	Asp	Arg	Pro	Leu	Ser	Trp	Glu
		275					280					285			
Glu	Ser	Thr	Glu	His	Ser	Ser	Leu	Ala	Leu	Asn	Ser	Gly	Leu	Pro	Asn
	290					295					300				
Gly	Glu	Thr	Ser	Ser	Gly	Gly	Gln	Pro	Arg	Leu	Ala	Glu	Pro	Asp	lle
305					310					315					320
Tyr	Gln	Glu	Lys	Leu	Ser	Gln	Va]	Arg	Asp	Val	Arg	Ser	Lys	Asp	Leu
				325					330					335	
Gly	Ser	Ser	Thr	Asp	Leu	Gly	Thr	Ser	Leu	Pro	Leu	Asp	Ser	Trp	Val
			340					345					350		
Asn	Пе	Thr	Arg	Phe	Cys	Asp	Ser	Gln	Leu	Lys	His	Gly	Ala	Pro	Arg
		355					360					365			
Pro	Gly	Met	Lys	Ser	Ser	Pro	His	Asp	Ser	His	Thr	Cys	Val	Thr	Tyr
	370					375					380				
Pro	Glu	Arg	Asn	His	lle	Leu	Leu	His	Pro	His	Trp	Asn	Gln	Asp	Thr
385					390					395					400
Glu	Gln	Glu	Thr	Ser	Glu	Leu	Glu	Ser	Leu	Tyr	Gln	Ala	Ser	Leu	Gln
				405										415	
Ala	Ser	Gln		Gly	Cys	Ser	Gl y		Gly	Gln	Gln	Asp		Ala	Trp
	_		420					425					430		
His	Pro		Ser	Gln	Thr	Gly		Ala	Asp	Gly	Met		Arg	Arg	Leu
		435					440	_			_	445			
His		Ala	His	Asp	Pro		Leu	Ser	Lys	Thr		Thr	Ala	Glu	Met
6.1	450	6.1			61	455		TO 1	,		460		0.1		Tr. I
	HIS	61y	Leu	HIS		Ala	Arg	lhr	Val		Ihr	Ser	GIn	Ala	
465	6		61		470		6.1	0	67	475		6.1	63	т	480
Pro	EVC	Aro	ti I V	1611	Ser	Aro	(.11)	IVC	1.137	4.111	Acn	1.111	L. In	Tyr	707

				485					490					495	
Ala	Glu	Asn	Leu 500	Arg	Arg	lle	Ser	Arg 505	Ser	Leu	Ser	Gly	Thr 510	Val	Val
Pro	Glu	Arg		Glu	Ala	Pro	Val		Ser	His	Ser	Phe		Ser	Ser
		515					520					525			
Asn	Val	Arg	Lys	Pro	Leu	G1u	Thr	Gly	His	Arg	Cys	Ser	Ser	Ser	Ser
	530					535					540				
Ser	Leu	Pro	Val	He	His	Asp	Pro	Ser	Val	Phe	Leu	Leu	Gly	Pro	Gln
545					550					555					560
Leu	Tyr	Leu	Pro	G1n 565	Pro	Gln	Phe	Leu	Ser 570	Pro	Asp	Val	Leu	Met 575	Pro
Thr	Met	Ala	G1 v		Pro	Asn	Arg	Len		Glv	Thr	Ser	Arg		Val
			580	-			6	585					590		
G1n	Gln	Phe	Leu	Ala	Met	Cys	Asp	Arg	G1 y	Glu	Thr	Ser	Gln	Gly	Ala
		595					600					605			
Lys	Tyr	Thr	Gly	Arg	Thr	Leu	Asn	Tyr	Gln	Ser	Leu	Pro	His	Arg	Ser
	610					615					620				
Arg	Thr	Asp	Asn	Ser	Trp	Ala	Pro	Trp	Ser	Glu	Thr	Asn	Gln	His	He
625					630					635					640
Gly	Thr	Arg	Phe	Leu	Thr	Thr	Pro	Gly	Cys	Asn	Pro	Gln	Leu	Thr	Tyr
				645					650					655	
Thr	Ala	Thr		Pro	Glu	Arg	Ser		Gly	Leu	Gln	Val		His	Thr
.	6	Tr.	660		,	DI		665	D	C		D	670		17 7
GIn	Ser	1rp 675	Ser	Asp	Leu	Phe	His	Ser	Pro	Ser	HIS		Pro	He	val
Hic	Pro		Tyr	Pro	Pro	Sor	680 Ser	Sor	اما	Hic	Val	685 Pro	Lou	Ara	Sor
1115	690	1 (1)	1 9 1	110	110	695		561	Leu	1113	700		Leu	ni g	561
Ala		Asn	Ser	Asp	Pro		Pro	Glv	Ser	Arg			Glv	Pro	Arg
705	1-				710					715			-		720
Arg	Val	Asp	Met	Pro	Pro	Asp	Asp	Asp	Trp	Arg	Gln	Ser	Ser	Tyr	Ala
				725					730					735	
Ser	His	Ser	Gly	His	Arg	Arg	Thr	Val	Gly	Glu	Gly	Phe	Leu	Phe	Val
			740					745					750		
Leu	Ser	Asp	Ala	Pro	Arg	Arg	Glu	Gln	He	Arg	Ala	Arg	Val	Leu	G1n
		755					760					765			
His	Ser	Gln	Trp												

<210> 4345 <211> 235

<212> PRT <213> Homo sapiens <400> 4345 Met Asp Leu Ser Leu His Val Ala Ser Leu Cys Leu Pro His His Pro 1 10 5 Ser Pro Ala Gln Leu Lys Pro Ala Gly Ala Leu Cys Arg Gln Ala Met 25 Gly Asp Cys Asp Leu Pro Glu Phe Cys Thr Gly Thr Ser Ser His Cys 45 Pro Pro Asp Val Tyr Leu Leu Asp Gly Ser Pro Cys Ala Arg Gly Ser 55 60 Gly Tyr Cys Trp Asp Gly Ala Cys Pro Thr Leu Glu Gln Gln Cys Gln 70 75 Gln Leu Trp Gly Pro Gly Glu Arg Thr Arg Ala Pro Leu His Pro Ala 85 90 Pro His Pro Leu Val Gly Pro Val Phe Tyr Cys Gly Glu Asp Gly Gln 105 Gly Lys Leu Arg Pro Ala Glu Arg Ser Pro Ser Pro Ser Cys Pro Gln 125 115 120 Pro Gly Pro Cys Phe Leu Arg Leu Pro Pro Ser Ser Arg Gly Leu Phe 130 135 140 Pro Gly Gly Glu Leu Cys Gly Arg Cys Ser Trp Lys Leu Arg Pro Gly 150 155 Gln Arg Gly Pro Leu Pro Ala Leu Cys Arg Glu Gly Cys Pro Val Trp 165 170 Glu Ala Ala Val Pro Gly Trp Lys Ala Gln Pro Ala Arg Thr Ala His 185 Gly Ala Ser Gly Leu Tyr Arg Ser Pro Arg Trp Pro Gly Ser Asp Leu 195 200 205 Ser Gly Ser Leu Gly Thr Pro Gln Cys Pro Ala Gly Pro Ala Trp Pro 210 215 220

Gly Pro Gly Arg Ala Arg His Pro Val Trp Thr

225 230 235

<210> 4346

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4346

Met Gly Lys Arg Glu Gln Val Gly Arg Arg Ser Gly Ala Trp Ala Glu

1 5 10 15

Ala Ala Met Leu Cys Phe Leu Leu Gl
n Val Glu Ala Ser Gly Val Tyr 20 $$25\,$ 30

Ala Ala Ser Lys Glu Gly Gly His Gly Arg Gly Val Leu Ser His Ala 35 40 45

Ala Arg Ala Gly Arg Pro Trp Glu Ala Ala His Phe Phe Leu Gly Pro
50 55 60

Asp Ala Trp Ser Val Thr Thr Gly Arg Ala Gly Leu Thr Glu Ala Pro 65 70 75 80

Ala Pro Ala Ala Pro Tyr Leu Pro Gly Met Ala Arg Glu Ser Arg Pro 85 90 95

Glu Gly Gly Ser Ser Arg Leu Leu Glu Gln Glu Arg Ala Gly Ser Gly
100 105 110

Asp Arg Cys Val Pro Ala Ala Gln Arg Ser Gly Gln Gly
115 120 125

<210> 4347

<211> 170

<212> PRT

<213> Homo sapiens

<400> 4347

Met Ala Thr Ala Thr Asn Glu Leu Gly Gln Ala Thr Cys Ala Ala Ser

10 Leu Thr Val Arg Pro Gly Gly Ser Thr Ser Pro Phe Ser Ser Pro Ile 25 Thr Ser Asp Glu Glu Tyr Leu Ser Pro Pro Glu Glu Phe Pro Glu Pro 35 40 45 Gly Glu Thr Trp Pro Arg Thr Pro Thr Met Lys Pro Ser Pro Ser Gln 55 60 Asn Arg Arg Ser Ser Asp Thr Gly Ser Lys Ala Pro Pro Thr Phe Lys 70 75 Val Ser Leu Met Asp Gln Ser Val Arg Glu Gly Gln Asp Val Ile Met 85 90 Ser Ile Arg Val Gln Gly Glu Pro Lys Pro Val Val Ser Trp Leu Arg 105 Asn Arg Gln Pro Val Arg Pro Asp Gln Arg Arg Phe Ala Glu Glu Ala 115 120 Glu Gly Gly Leu Cys Arg Leu Arg Ile Leu Ala Ala Glu Arg'Gly Asp 135 140 Ala Gly Phe Tyr Thr Cys Lys Ala Val Asn Glu Tyr Gly Ala Arg Gln 150 155160 Cys Glu Ala Arg Leu Glu Val Arg Gly Glu 165 170

<210> 4348

<211> 314

<212> PRT

<213> Homo sapiens

<400> 4348

 Met
 11e
 Leu
 Ala
 His
 Cys
 Ser
 Leu
 Asp
 Phe
 Leu
 Gly
 Ser
 Asp
 Pro

 1
 5
 5
 10
 10
 10
 15
 15

 Pro
 Gln
 Pro
 Met
 Trp
 Leu
 Glu
 Pro
 Gln
 Ala
 Arg
 Ala
 Thr
 Met
 Pro

 Gly
 Tyr
 Phe
 Phe
 Val
 Glu
 Leu
 Gly
 Ser
 Arg
 Phe
 Val
 Ala
 Gly
 Ala
 Gly

 35
 40
 40
 45
 45
 45
 45
 46

Leu Glu Leu Leu Gly Ser Ser Asn Pro Ser His Ser Ala Ser Arg Ser

	50					55					60				
Val	Glu	Asn	He	Gly	Val	Gly	Tyr	Tyr	Thr	Cys	Phe	Ser	Arg	Phe	Tyr
65					70					75					80
Lys	Thr	Ala	Asp	Leu	Cys	Val	Glu	Asp	Arg	Pro	Gly	Val	Cys	Ser	Leu
				85					90					95	
Arg	Cys	Glu	Asp	Val	Leu	Ser	Arg	Asp	Phe	Pro	Trp	Val	Ser	He	Ser
			100					105					110		
Phe	Phe	Leu	Leu	Ser	Ser	Lys	Thr	Asn	Arg	Arg	Pro	Ala	Ala	Val	Ala
		115					120					125			
Gln	Ala	Ser	Ser	Pro	Ser	Thr	Leu	Gly	Gly	Cys	Arg	Trp	Arg	Ile	Thr
	130					135					140				
Arg	Pro	Gly	Val	Arg	Asp	Gln	Pro	Gly	Arg	His	Asp	Glu	Ala	Leu	Ser
145					150					155					160
Leu	Pro	Lys	Met	Gln	Lys	Leu	Ala	Gly	Cys	Asp	Gly	Gly	Cys	Leu	Trp
				165					170					175	
Ser	Gln	Leu	Leu	Gly	Arg	Leu	Arg	Gln	Glu	Asn	Cys	Leu	Asp	Pro	Gly
			180					185					190		
Gly	Gly	Gly	Cys	Ser	Glu	Pro	Gly	Ser	Cys	His	Cys	Thr	Pro	Ala	Trp
		195					200					205			
Ala	Thr	Gly	Arg	Asp	Ser		Ser	Lys	Thr	Asn	Thr	He	Arg	Lys	Cys
	210					215					220				
Ser	G1 y	Gly	G1 y	G1 y		Leu	Leu	He	Cys		Asp	Arg	Leu	Lys	Ala
225					230					235					240
Thir	Pro	Arg	Val		Leu	Ser	Thr	Ser		Ser	Arg	lle	Trp	Leu	Pro
				245					250					255	
Ala	Ser	Leu		He	Val	Val	Trp		Lys	Glu	Arg	Cys		Arg	Leu
			260					265					270	_	
Val	Leu		Thr	Leu	Glu	Phe	Pro	Ala	Ala	Gln	His		Val	Pro	Ser
		275					280					285			•
Pro		Pro	Ser	GIn	Gly		Ala	He	Leu	Phe		Phe	Ser	Val	Cys
	290		m)			295					300				
	Pro	Glu	Thr	Asn		Phe	Pro	Lys	Asp						
305					310										

<211> 413

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<212> PRT
<213> Homo sapiens
<400> 4349
Met Ser Leu Thr Thr Asp Asp Leu Leu Arg Leu Pro Ala Asp Gly Ser
                                     10
Phe Ser Tyr Thr Tyr Val Gly Pro Ser His Arg Thr Ser Lys Lys Asn
                                 25
Lys Lys Cys Arg Gly Arg Leu Gly Ser Leu Asp Ile Glu Lys Asn Pro
         35
                             40
                                                 45
His Phe Gln Gly Pro Tyr Thr Ser Met Gly Lys Asp Asn Phe Val Thr
                         55
Pro Val IIe Arg Ser Asn IIe Asn Gly Lys Gln Cys Gly Arg Leu Lys
                     70
65
Asn Pro Lys Leu Met Asn Arg Thr Asn Asn Cys Ile Ser Glu Ser Ser
                                     90
                 85
Leu Ser Phe Pro Lys Lys Ser Ser Phe Lys Asp Ser Ser Glu His Ser
                                105
Leu Glu Lys Asn Tyr Pro Arg Trp Leu Thr Ser Gln Lys Ser Asp Leu
                            120
                                                 125
        115
Asn Val Ser Gly 11e Thr Ser 11e Pro Asp Phe Lys Tyr Pro Val Trp
                        135
Leu His Asn Gln Asp Leu Leu Pro Asp Ala Asn Ser Gln Arg Val Tyr
145
                                         155
                                                             160
Gln Ile Phe Lys Asp Asp Gln Cys Ser Pro Arg His Ser His Gln Ala
                                    170
                165
Gln Gly Thr Ser Arg Leu Ile Asn Lys Leu Asp Cys Phe Glu Tyr Ala
            180
                                185
                                                    190
Phe Glu Pro Ser Asn Phe Ser Asn Ser Leu Ser Asp Asp Lys Glu Leu
                                                 205
        195
                            200
Val Asn Glu Tyr Lys Cys Asp Phe Glu His Ser Gln Cys Glu Cys Glu
                        215
                                            220
Asn Pro Leu Leu Pro Gly Gln Ser Thr Lys Pro Phe Ser Gly Asp Lys
                                                             240
225
                    230
                                         235
```

He Glu Leu Leu He Leu Lys Ala Lys Arg Asn Leu Glu Gln Cys Thr

C1	Glu														
GIU	UIU	Leu	Pro	Lys	Ser	Met	Lys	Lys	Asp	Asp	Ser	Pro	Cys	Ser	Leu
			260					265					270		
Asp	Lys	Leu	Glu	Ala	Asp	Arg	Ser	Trp	Glu	Asn	He	Pro	Val	Thr	Phe
		275					280					285			
Lys	Ser	Pro	Val	Pro	Val	Asn	Ser	Asp	Asp	Ser	Pro	Gln	Gln	Thr	Ser
	290					295					300				
Arg	Ala	Lys	Ser	Ala	Lys	Gly	Val	Leu	Glu	Asp	Phe	Leu	Asn	Asn	Asp
305					310					315					320
Asn	Gln	Ser	Cys	Thr	Leu	Ser	Gly	Gly	Lys	His	His	G1 y	Pro	Val	Glu
				325					330					335	
Ala	Leu	Lys	Gln	Met	Leu	Phe	Asn	Leu	Gln	Ala	Val	Gln	Glu	Arg	Phe
			340					345					350		
Asn	Gln	Asn	Lys	Thr	Thr	Asp	Pro	Lys	61u	Glu	He	Lys	Gln	Val	Ser
		355					360					365			
Glu	Asp	Asp	Phe	Ser	Lys	Leu	Gln	Leu	Lys	Glu	Ser	Met	11e	Pro	He
	370					375					380				
Thr	Arg	Ser	Leu	Gln	Lys	Ala	Leu	His	His	Leu	Ser	Arg	Leu	Arg	Asp
385					390					395					400
Leu	Val	Asp	Asp	Thr	Asn	Gly	Glu	Arg	Ser	Pro	Lys	Met			
				405					410						

<210> 4350

<211> 135

<212> PRT

<213> Homo sapiens

<400> 4350

Met Gly Gly Lys Leu Ser Asp Ser Arg Lys Asn Leu Cys Lys Gln Ser 1 5 10 15 Ser Gln Ser Asp Thr Phe Gly Asp Pro Arg Pro Ala Gly Val Lys Ile 20 25 30 Ser Val Asn Pro Leu Lys Cys Leu Leu Gly Val Gly His Thr Leu Pro 35 40 45

Gly Pro Leu Ala Cys Pro Ala Leu Ala Trp Pro Val Met Ser Gly Ile Gln Gly Cys His Pro Leu Pro Lys Leu Ser Cys Gly Val Pro Gly Val Ala Phe Pro Pro Thr Val Pro Arg Leu Pro Leu Leu Ser Val Ala Ala Pro His Ser Gly Gly Ile Met Ser Ala Gly Glu Leu Ser Leu Pro Gln His Ser Trp Pro Arg Leu Trp Ala Ser Ser Glu 11e Ala Val Thr Thr Arg Pro Ala Met Asp Ser Leu

<210> 4351

<211> 205

<212> PRT

<213> Homo sapiens

<400> 4351

Met Leu Pro Ser Phe Tyr Ser Glu Leu Phe Thr Leu Tyr Leu Leu Leu His Glu Arg Glu Asp Ser Phe Tyr Ser Gln Gly He Ala Asn Leu Ser Leu Phe Pro Asp Thr Gln Leu Leu Glu Phe Leu Asp Val Gln Lys His Leu Trp Pro Leu Lys Asp Leu Thr Leu Thr Ser Asn Gln Arg Tyr Ser Leu Val Arg Asp Lys Cys Phe Leu Ser Ala Thr Glu Cys Leu Gln Lys lle Met Thr Thr Val Asp Pro Arg Glu Lys Leu Glu Val Leu Glu Arg Thr Tyr Gly Glu He Glu Gly Thr Val Ser Arg Val Leu Gly Arg Glu Tyr Lys Leu Pro Met Asp Asp Leu Leu Pro Leu Leu Ile Tyr Val Val

Ser Arg Ala Arg Trp Gly Ser Gln Gly Pro Glu Lys Gly Gly Ser Gln Pro Gly Cys Trp Gly Ala Arg Gly Arg Val Arg Thr Thr Pro Gln Val Ser Ser His Pro Gly Gln Arg Ser Phe Pro Ser Cys Leu Ser Ala Thr Gly Leu Phe Ser Leu Ser Pro Ser Leu Ser Trp Trp Gly Gly Val Leu Gln Asn Ser Ala Pro Gly Ser Arg Asp Pro Pro Asp Pro

<210> 4352

<211> 416

<212> PRT

<213> Homo sapiens

<400> 4352

Met Ser Pro Ala Met Leu Ser Val Leu Val Lys Met Met Leu Ala Gln Ala Gln Glu Ser Val Phe Glu Lys Ile Ser Leu Pro Gly Ile Arg Asn Glu Phe Phe Met Leu Val Lys Val Ala Gln Glu Ala Ala Lys Val Gly Glu Val Tyr Gln Gln Leu His Ala Ala Met Ser Gln Ala Pro Val Lys Glu Asn 11e Pro Tyr Ser Trp Ala Ser Leu Ala Cys Val Lys Ala His His Tyr Ala Ala Leu Ala His Tyr Phe Thr Ala lle Leu Leu Ile Asp His Gln Val Lys Pro Gly Thr Asp Leu Asp His Gln Glu Lys Cys Leu Ser Gln Leu Tyr Asp His Met Pro Glu Gly Leu Thr Pro Leu Ala Thr

Leu Lys Asn Asp Gln Gln Arg Arg Gln Leu Gly Lys Ser His Leu Arg

Arg	Ala	Met	Ala	HIS	1115	61u	61 u	Ser	vai	Arg	GIU	ATA	Ser	Leu	Cys
145					150					155					160
Lys	Lys	Leu	Arg	Ser	He	Glu	Val	Leu	Gln	Lys	Val	Leu	Cys	Ala	Ala
				165					170					175	
Gln	Glu	Arg	Ser	Arg	Leu	Thr	Tyr	Ala	Gln	His	Gln	G] u	Glu	Asp	Asp
			180					185					190		
Leu	Leu	Asn	Leu	He	Asp	Ala	Pro	Ser	Val	Val	Ala	Lys	Thr	Glu	Gln
		195					200					205			
Glu	Val	Asp	He	He	Leu	Pro	Gln	Phe	Ser	Lys	Leu	Thr	Val	Thr	Asp
	210					215		•			220				
Phe	Phe	Gln	Lys	Leu	Gly	Pro	Leu	Ser	Val	Phe	Ser	Ala	Asn	Lys	Arg
225					230					235					240
Trp	Thr	Pro	Pro	Arg	Ser	lle	Arg	Phe	Thr	Λla	Glu	Glu	G1 y	Asp	Leu
				245				÷	250					255	
Gly	Phe	Thr	Leu	Arg	Gly	Asn	Ala	Pro	Val	Gln	Val	His	Phe	Leu	Asp
			260					265					270		
Pro	Tyr	Cys	Ser	Ala	Ser	Val	Ala	Gly	Ala	Arg	Glu	Gly	Asp	Tyr	He
		275					280					285			
Val	Ser	He	Gln	Leu	Val	Asp	Cys	Lys	Trp	Leu	Thr	Leu	Ser	Glu	Val
	290					295					300				
Met	Lys	Leu	Leu	Lys	Ser	Phe	Gly	Glu	Asp	Glu	He	Glu	Met	Lys	Val
305					310					315					320
Val	Ser	Leu	Leu	Asp	Ser	Thr	Ser	Ser	Met	His	Asn	Lys	Ser	Ala	Thr
				325					330					335	
Tyr	Ser	Val	Gly	Met	Gln	Lys	Thr	Tyr	Ser	Met	He	Cys	Leu	Ala]]e
			340					345					350		
Asp	Asp	Asp	Asp	Lys	Thr	Asp	Lys	Thr	Lys	Lys	He	Ser	Lys	Lys	Leu
		355					360					365			
Ser	Phe	Leu	Ser	Trp	Gly	Thr	Asn	Lys	Asn	Arg	Gln	Lys	Ser	Ala	Ser
	370					375					380				
Thr	Leu	Cys	Leu	Pro	Ser	Val	Gly	Ala	Ala	Arg	Pro	Gln	Va1	Lys	Lys
385					390					395					400
Lys	Leu	Pro	Ser	Pro	Phe	Ser	Leu	Leu	Asn	Ser	Asp	Ser	Ser	Trp	Tyr

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<211> 296
<212> PRT
<213> Homo sapiens
<400> 4353
Met Ser Ala Leu Ile Leu Pro Arg Met Lys Gly Pro Arg Leu Thr His
Pro Glu Ser Arg Ala His Gln Ala Leu Pro Gly His Ser Leu Ser Ser
                                 25
                                                      30
Ser Ser His Ser Leu Arg Ser Ala Cys Ala Thr Gln Ile Gln Thr Ser
                             40
                                                 45
Arg Thr Trp Glu Val Glu Trp Leu Thr Arg Gly His Pro Leu Glu Glu
                         55
                                             60
Ala Lvs Ala Gly Leu Glu Pro Arg Pro Val Gly Val Gln Val Arg Pro
                     70
                                         75
65
Leu Pro Ala Ala Gln Cys Pro Leu Ser Ser Ser Leu Gly Thr Leu
                                     90
Glu Pro Gln Trp Gly Val Gln Gly Ser Ala Gln Pro Phe Pro Arg Cys
            100
                                105
                                                     110
Val Thr Pro Ser Thr Phe Leu Pro Leu Ser Val Pro Leu Gly Val Ala
                            120
                                                125
Arg Glu Leu Gly Gly Val Ile Leu His His Glu His Pro Pro Phe Ser
                        135
                                            140
Pro Ser Ala Glu Lys Ser Val Pro Leu Cys Ile Leu Tyr Glu Lys Tyr
145
                    150
                                        155
                                                             160
Arg Asp Cys Leu Thr Glu Ser Asn Leu Ile Lys Val Arg Ala Leu Leu
                                    170
Val Glu Pro Val 11e Asn Ser Tyr Leu Leu Ala Glu Arg Asp Leu Tyr
            180
                                185
                                                     190
Leu Glu Asn Pro Glu Ile Lys Ile Arg Ile Leu Gly Glu Pro Lys Gln
        195
                            200
                                                205
Lys Arg Lys Leu Val Ala Glu Val Ser Leu Gln Asn Pro Leu Pro Val
                        215
                                            220
Ala Leu Glu Gly Cys Thr Phe Thr Val Glu Gly Ala Gly Leu Thr Glu
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<210> 4353

<210> 4354

<211> 130

<212> PRT

<213> Homo sapiens

<400> 4354

Met Ser Ala Leu Ala Val Ser Met Ala Met Val Arg Gly Ser Leu Pro 1 5 10 15

Ser Glu Ser Arg Ala Pro Arg Ser Ala Pro Arg Phe Arg Asn Arg Gln
20 25 30

Ala Ser Leu Glu Arg Arg Ala Arg Val Ser Arg Pro Pro Asn Phe Ser 35 40 45

Gln Pro Ser Ser Pro Cys His His Pro Tyr Pro Val Trp Pro Arg Met
50 55 60

Val Ala Trp Cys Ser Gly Pro Arg Pro Ala Leu Ser Ala Trp Phe Thr
65 70 75 80

Phe Ala Pro Phe Trp Arg Arg Asn Ser Gln Ala Arg Arg Glu Phe Cys
85 90 95

Met Glu Lys Ser Arg Arg Gly Val Glu Gly Gly 11e Pro Ser Gly Gly
100 105 110

Phe Gln Asp Val Leu Gly Trp Arg Gln Phe Arg Glu Trp Glu Gly Gly 115 120 125

Val Trp

```
<210> 4355
⟨211⟩ 213
<212> PRT
<213> Homo sapiens
<400> 4355
Met Glu Pro Ala Pro Val Ser Ala Pro Thr Arg Ser Pro Cys Ser Pro
                                     10
Ser Leu Trp Ser Pro Gln Asp Ala Glu Pro Asn Gly Gly Arg Ala Gly
             20
His Ala Gly Gly Arg Val Ala Leu Ala Ser Gln His Pro Ala Gln Arg
                                                  45
                             40
Lys Pro Leu Leu Arg Gly Arg Pro His Arg Gly Ala Val Gly Pro Asp
                         55
                                              60
Gly Cys Ala Leu Leu Pro Gln Val Ser Pro Pro Ala Pro Ala Pro Ala
                     70
                                          75
                                                              80
65
His Ser Ala Asp Ser Ala Pro Arg Ala Thr Gly Ser Ala Pro Trp Thr
                                     90
Ala Pro Ala Ala Pro Asn Pro Ala Gly Asp Leu Pro Gly Gly Ser Trp
            100
                                105
                                                     110
Ser Ser Pro Ser His Pro Asp Ala Ser Leu Arg Ser Asn Ser Arg Ala
        115
                            120
                                                 125
Asn Phe Gln Leu Gln Pro Leu Leu Pro Pro Ala Gly Gly Ala Ser His
    130
                        135
                                             140
Arg Pro Pro Thr Pro Ser Ile Pro Ser Thr His Ser Pro Thr Pro Cys
                    150
                                         155
                                                             160
145
Gly Ser Leu Gln Lys Arg Pro Gly Arg Leu Cys Pro Pro Ala Pro Pro
                                    170
                165
Gly Leu Ser Pro Ser Arg Thr His Leu Ser Ser Arg Thr Leu Phe Pro
            180
                                185
                                                     190
Gly Gly Thr Leu Leu Thr Lys Pro Lys Asp Gln Thr Glu Arg Pro Phe
        195
                            200
                                                 205
Leu Pro Ser Pro Thr
```

```
<210> 4356
<211> 333
<212> PRT
<213> Homo sapiens
<400> 4356
Met Lys Tyr Arg Ser Cys Ala Asp Cys Val Leu Ala Arg Asp Pro Tyr
 l
                  5
                                     10
Cys Ala Trp Ser Val Asn Thr Ser Arg Cys Val Ala Val Gly Gly His
             20
                                 25
                                                      30
Ser Gly Ser Leu Leu Ile Gln His Val Met Thr Ser Asp Thr Ser Gly
         35
                             40
                                                  45
lle Cys Asn Leu Arg Gly Ser Lys Lys Val Arg Pro Thr Pro Lys Asn
     50
                         55
                                              60
lle Thr Val Val Ala Gly Thr Asp Leu Val Leu Pro Cys His Leu Ser
                                          75
Ser Asn Leu Ala His Ala Arg Trp Thr Phe Gly Gly Arg Asp Leu Pro
                 85
                                     90
Ala Glu Gln Pro Gly Ser Phe Leu Tyr Asp Ala Arg Leu Gln Ala Leu
            100
                                105
Val Val Met Ala Ala Gln Pro Arg His Ala Gly Ala Tyr His Cys Phe
                            120
                                                 125
Ser Glu Glu Gln Gly Ala Arg Leu Ala Ala Glu Gly Tyr Leu Val Ala
    130
                        135
                                             140
Val Val Ala Glv Pro Ser Val Thr Leu Glu Ala Arg Ala Pro Leu Glu
                                        155
Asn Leu Gly Leu Val Trp Leu Ala Val Val Ala Leu Gly Ala Val Cys
                165
                                    170
                                                         175
Leu Val Leu Leu Leu Val Leu Ser Leu Arg Arg Arg Leu Arg Glu
            180
                                185
Glu Leu Glu Lys Gly Ala Lys Ala Thr Glu Arg Thr Leu Val Tyr Pro
                            200
                                                 205
```

Leu Glu Leu Pro Lys Glu Pro Thr Ser Pro Pro Phe Arg Pro Cys Pro

Glu Pro Asp Glu Lys Leu Trp Asp Pro Val Gly Tyr Tyr Ser Asp 230 235 Gly Ser Leu Lys 11e Val Pro Gly His Ala Arg Cys Gln Pro Gly Gly 245 250 Gly Pro Pro Ser Pro Pro Pro Gly Ile Pro Gly Gln Pro Leu Pro Ser 260 265 Pro Thr Arg Leu His Leu Gly Gly Gly Arg Asn Ser Asn Ala Asn Gly 280 Tyr Val Arg Leu Gln Leu Gly Gly Glu Asp Arg Gly Gly Leu Gly His 290 295 300 Pro Leu Pro Glu Leu Ala Asp Glu Leu Arg Arg Lys Leu Gln Gln Arg 310 305 315 320 Gln Pro Leu Pro Asp Ser Asn Pro Glu Glu Ser Ser Val 325 330

<210> 4357

<211> 180

<212> PRT

<213> Homo sapiens

<400> 4357

Met Leu Glu Gly Val Ser Asn Glu Phe Asp His Phe Gly 11e Ser Leu 1 5 .10 15

Pro Leu Lys Ile Cys Leu His Leu Gly Trp Asp Glu Gly Leu Val Glu 20 25 30

Gly Lys Val Val Arg Leu Gly Gln Gly Ile Gly Lys Ser 11e Cys Ser 35 40 45

Ser Cys Gln Leu Phe Glu Glu Ala Pro Thr Gln Met Ser Thr Val Pro
50 55 60

Ser Gly Leu Pro Leu Pro 11e Leu Met His Leu Cys Leu Leu Pro Val 65 70 75 80

Cys Met Ala His Leu Cys Pro Ala Ser Pro Cys Tyr Phe Gly Ala Thr
85 90 95

Pro Gly Ser Gly Lys Phe Cys Arg Leu IIe Thr Tyr Ser His Ser Ser 100 105 110 Pro Gln Leu Ala Ala Ser Leu Arg His Arg Gly Arg Glu Val Gly Lys Asp Leu Pro Tyr Pro Gly Leu Cys Pro Leu Thr Phe His Pro Ser Phe Phe Pro Pro Val Glu Gly Cys Val Ser Ser Leu Pro Gly Lys Leu Leu Ser Pro Gln Thr Ile Phe Phe Gln Ile Leu Trp Leu Tyr Ser Lys Ser Ser Leu Val Leu <210> 4358 <211> 1222 <212> PRT <213> Homo sapiens <400> 4358 Met Leu Asp Pro Ser Ser Ser Glu Glu Glu Ser Asp Glu Gly Leu Glu Glu Glu Ser Arg Asp Val Leu Val Ala Ala Gly Ser Ser Gln Arg Ala Pro Pro Ala Pro Thr Arg Glu Gly Gln Leu Asp Asp Glu Gln Glu Arg Arg Ile Arg Leu Gln Leu Tyr Val Phe Val Val Arg Cys Ile Ala Tyr Pro Phe Asn Ala Lys Gln Pro Thr Asp Met Ala Arg Arg Gln Gln Lys Leu Asn Lys Gln Gln Leu Gln Leu Leu Lys Glu Arg Phe Gln Ala Phe Leu Asn Gly Glu Thr Gln lle Val Ala Asp Glu Ala Phe Cys Asn Ala Val Arg Ser Tyr Tyr Glu Val Phe Leu Lys Ser Asp Arg Val Ala Arg

Met Val Gln Ser Gly Gly Cys Ser Ala Asn Asp Phe Arg Glu Val Phe

Lys	Lys	Asn	He	Glu	Lys	Arg	Val	Arg	Ser	Leu	Pro	Glu	Ile	Asp	Gly
145					150					155					160
Leu	Ser	Lys	Glu	Thr	Val	Leu	Ser	Ser	Trp	lle	Ala	Lys	Tyr	Asp	Ala
				165					170					175	
Пe	Tyr	Arg	Gly	Glu	Glu	Asp	Leu	Cys	Lys	Gln	Pro	Asn	Arg	Met	Ala
			180					185					190		
Leu	Ser	Ala	Val	Ser	Glu	Leu	He	Leu	Ser	Lys	Glu	Gln	Leu	Tyr	Glu
		195					200					205			
Met	Phe	Gln	Gln	He	Leu	Gly	Ile	Lys	Lys	Leu	Glu	His	Gln	Leu	Leu
	210					215					220				
Tyr	Asn	Ala	Cys	Gln	Leu	Asp	Asn	Ala	Asp	Glu	Gln	Ala	Ala	Gln	He
225					230					235					240
Arg	Arg	Glu	Leu	Asp	Gly	Arg	Leu	Gln	Leu	Ala	Asp	Lys	Met	Ala	Lys
				245					250					255	
Glu	Arg	Lys	Phe	Pro	Lys	Phe	He	Ala	Lys	Asp	Met	Glu	Asn	Met	Tyr
			260					265					270		
He	Glu	Glu	Leu	Arg	Ser	Ser	Val	Asn	Leu	Leu	Met	Ala	Asn	Leu	Glu
		275					280					285			
Ser		Pro	Val	Ser	Lys	Gly	Gly	Pro	Glu	Phe	Lys	Leu	Gln	Lys	Leu
	290					295					300				
Lys	Arg	Ser	Gln	Asn		Ala	Phe	Leu	Asp	He	Gly	Asp	Glu	Asn	
305					310					315					320
He	Gln	Leu	Ser		Ser	Asp	Val	Val		Ser	Phe	Thr	Leu		He
				325					330					335	
Val	He	Met		Val	Gln	Gly	Leu	-	Ser	Val	Ala	Pro		Arg	He
		<u> </u>	340		a.1			345					350		
Val	Tyr		Thr	Met	Glu	Val		G1 y	Glu	Lys	Leu		Thr	Asp	GIn
	6.1	355	C		D	6.1	360 T	0.1	an)	6.1	6.1	365	DI	Œ1	T)
Ala		Ala	Ser	Arg	Pro	Gln	Trp	Gly	Thr	GIn		Asp	Phe	Thr	lhr
T)	370	75		15	17 1	375		17 1			380 Di	(D)	0.1	C	T)
	HIS	Pro	Arg	Pro		Val	Lys	Val	Lys		Phe	Ihr	Glu	Ser	
385	W 1		4.3	,	390			C1		395		12 1	1.1		400 T
оту	val	Leu	нта		отu	Asp	Lys	61u		θłй	Arg	val	116		ıyr
Dana	The	C	A 0 12	405	Sar	1	C	A 7 -	410	1	11: -	Λ	Mad	415	V = 1
1.1.0	1111	ser.	ASII	ser.	Se1	Lys	Sel	A18	010	Leu	птs	arg	Met	187	val